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The Mondain of Qatar

Volume 2: The Monocotyledons

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مركـــز الــدراســات البيئيــة Environmental Studies Center















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Volume 2: The Monocotyledons

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Preface

The material presented in this work displays the present status of our knowledge of the flora of Qatar. This is the outcome of numerous studies, plant collections and photo documentations by academic and non-academic individuals and as well the examination of the specimens deposited at the Herbarium of the Department of Biological & Environmental Sciences, Faculty of Arts & Sciences, Qatar University.

This work is intended for a twofold function:

- ◆ To document what plants exists up to date in Qatar providing an illustrated flora with data pertaining to their taxonomy, habitat, distribution, vernacular names and local uses for scientific studies in the fields of taxonomy and ecology and for future monitoring and,
- ◆ To provide the much-needed information of the existing plants on the web.

For those who are interested to pursue further studies on the plants of Qatar, the data provided is comprehensive and set in an easy format. As far as possible each entry is supplemented with photographs of the plant that give a glimpse of the plant *in situ* to show its habitat and as well, close ups to highlight the details of the most diagnostic features of each species. Voucher specimens of all material exist in the Herbarium at Qatar University but some species known to occur in Qatar and were mentioned in earlier floras could neither be traced nor encountered in the numerous collection of field trips undertaken since 1993.

The flora of Qatar is set in two volumes representing the two major divisions of flowering plants. **Volume One** covers the **Dicotyledons** and **Volume Two** deals with the **Monocotyledons**. The first few pages included in both volumes incorporate a detailed introduction outlining the main features of Qatar's landform and vegetation with some changes pertaining to the contents of each volume.

Acknowledgments

Gathering information for any inventory is a major task and I am grateful to all who provided plant material and photos and those who made this work possible.

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Mr. Khalid A. Al Bakri, Information Officer at the E.S.Center, QU undertook the arduous task of the keep and updating of the images and the follow up with the design of both volumes. He will be responsible for the posting of the flora on the Website of Qatar University.

My sincere thanks are to Dr. Shaheena Ghazanfer at Kew Herbarium for her review of the Manuscript. Dr. Shaheena is the author of numerous scientific publications and is the author of Flora of the Sultanate of Oman. Dr. Shaheena is Head of Temperate Regional Team and Co-Editor of FTEA at the Royal Botanic Garden, Kew.

I thank Professor David Mabberly Keeper of the Herbarium, Library, Art & Archives, Royal Botanic Gardens, Kew for permission to use the Herbarium and Library and I appreciate the care and help of Dr. Shaheena Ghazanfer at Kew Herbarium and her valuable discussions. Thanks are also due to Dr. Mark Carine for arranging the visit to the Herbarium of the Natural History Museum and for his help with the genus *Convolvulus*.

Ekhlas M.M.Abdel Bary Doha, July 2012.

About this book

No floristic work is complete. With time species names change as well as those of higher categories including families and orders and additions and corrections to taxa is a continuous process. It is now over 30 years since the most used flora (Batanouny, 1981) was published bearing in mind that the plants on which the flora was based were collected between September 1978 to April 1980. None of the specimens of the earlier collectors (Obeid (1975), Boulos (1978) and Al Amin (1983) were traced locally. Al Amin reported that a duplicate collection was deposited in Qatar at the then "newly established herbarium in Qatar". These were not traced. Equally, material mentioned in Norton et al.,(2009)was not deposited locally. In January 2011 only very few specimens of Qatar's flora were examined at Kew including specimens collected as early 1970 by the artist Cherry Willcox. Duplicates of the collections of Obeid, Boulos and Batanouny were deposited in the Cairo Herbarium. Few specimens were received after the death of Professor M. Obeid dispatched to Khartoum by the Royal Botanic Gardens in Edinburgh, Scotland. The collection books of Professor Obeid were found in KHU (Khartoum University Herbarium).

At the local herbarium in the Department of Biological and Environmental Sciences, Qatar University, Batanouny's specimens are kept in separate folders since on these his flora was detailed.

Attempt has been to include ALL species given in the different contributions to the flora of Qatar noting name changes and first records. There is doubt as to the occurrence of some species in Qatar and whether these were misidentifications. Unfortunately with no herbarium material available locally, these could not be checked.

Qatar is changing the face of its mainland fast with an advanced network of roads and highways and is expanding its infrastructure. Being a very small country not much remains of the landforms particularly the depressions that supported the vegetation and harbored the limited wealth of its flora. Sooner or later this present flora will have to be rewritten or updated. Hopefully till then it will remain a working flora for those interested in the plants of Qatar.

In this book the APG III system (Angiosperm Phylogeny Group III system) is recognized and followed. Much use and reliance to update nomenclature was on the available information in the web provided by IPNI (International Plant Names Index), APNI (Australian Plant Name Index) Kew The Plant Lists, USDA Plants, and images on the web.

Layout of Text

The description of taxa includes besides morphological descriptions, life form, habitat and distribution, origin and local names in Arabic script as well as how best they sound in English.

In the text, terminology was limited to the use of simple terms to enable non-taxonomist to follow up the given descriptions. Focus on the plates was on how the plants appear in the field and in their habitat and close ups of the main diagnostic features whether these are of flowers, fruits or seeds are included where available. Where plates are unavailable replacements in form of shadows or illustrations are included. Only scientific names are given in italics. Synonyms are included to update changes in the plant names for over 30 years in local floras. Types are not included as many websites detail them. Sectional and tribal divisions are included for selected families.

The Monocotyledons (Monocots)

Monocotyledonous plants may be seasonal, annual or perennials. Because of the harsh desert arid conditions, most plants have a short life span being within the range of ephemerals-annuals. Only few grasses are perennials but most grasses are annuals where part of their life is spent as a grain in the seed bank.

Habitats of the monocots are either desert pavements or one of the different landforms and, a large number of species occur as weeds. These were collected from cultivated land and gardens and would normally be growing on soils commonly fertilized either by chemical fertilizers or animal manures. Many grasses occur in depressions or sandy mounds. Depressions sometimes have clayey silty soils and sometimes sandy loam or cracking clays and usually retain rain water. They are thus a favored habitat for most wild plants particularly for the most common grass *Stipa capensis*.

Local uses are not known for each and every species. Plants given as **Fodder** include most weed species in field, gardens and tree plantations; those given as **Range** plants include only wild species in open land. In established farms weeds are offered to those who weed the fields and they use them as fodder.

In the local herbarium there are about 600 specimens of Batanouny's collection. These are of 138 species of the 301 species described in his book of which 62 species in 52 (39 are grasses) genera are monocots belonging to 7 families in 7 orders. Most of these are represented by a single specimen but duplicates are possibly found somewhere else.

Al Amin (1983) listed the same 7 monocot families with a total of 63 species. Norton *et al.*, (2009) listed 8 families with a total of 76 species (64 grasses, 5 sedges, 2 reeds, 3 seagrasses (and 1 fresh water submerged plant) and 2 species in the family Liliaceae). There are no duplicates of his specimens in Qatar. Madeed (2004) did not collect specimens but documented plants by photography for his book on wild plants of Qatar. His book focuses on the Arabic names of the plants, their origin with verses or poems that describe them. The plates are of good quality. He mentions 4 monocot families and describes 21 species (15 are grasses).

Note on the family Poaceae

The present flora includes 10 monocot families (Arecaceae, Commelinaceae, Cymodocaceae, Cyperaceae, Hydrocharitaceae, Juncaceae, Liliaceae, Poaceae Typhaceae and Zannichelliaceae). Of these the largest is the Poaceae (Gramineae / Grasses). There are 12 subfamilies recognized in the grasses of which 6 occur in the flora: Aristidoideae, Arundinoideae, Chloridoideae, Danthonioideae, Panicoideae and Pooideae. The first two subfamilies include the tribes Aristideae (*Aristida & Stipagrostis*) and Arundineae (*Arundo & Phragmites*) respectively. The Chloridoideae is represented by the tribes Cynodonteae (*Chloris & Cynodon*) and Eragrostideae (*Aeluropus, Dactyloctenium, Desmostachys, Eragrostis, Leptochloa & Sporobolus*). Danthonioideae is represented by one tribe (Danthonieae) with one genus in the flora (*Schismus*). The remaining 2 subfamilies the Panicoideae is represented by 3 tribes (Paniceae, Andropogoneae (with 2 subtribes:Andropogoninae & Rottboelliinae) and Maydeae and, the Pooideae is with 5 tribes (Brachypodieae, Bromeae, Poeae, Stipeae & Triticeae).

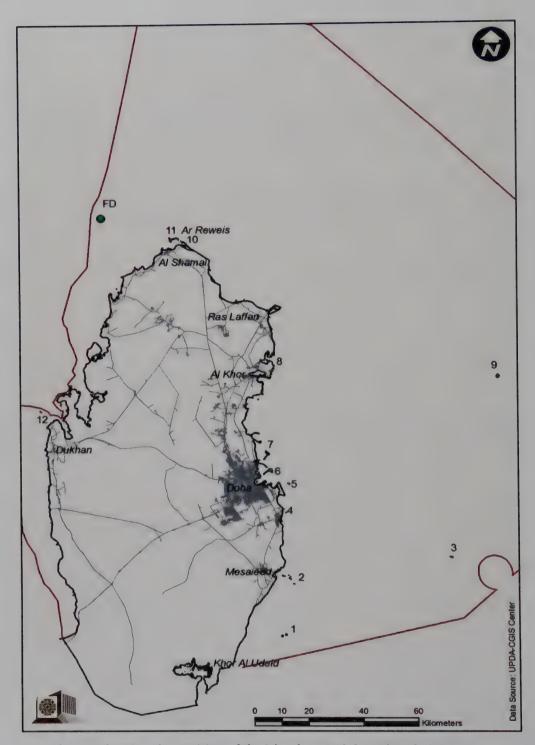
Introduction

Qatar is an oblong-shaped peninsula lying on a north-south axis alongside the center of the eastern coastline of Saudi Arabia, separated from it by Salwa Bay on the eastern side and is attached to it by a total distance of 60 km at its most southern end (Figure 1).

Qatar is small in size with a maximum length of 185 km and a maximum width of 85 km. The latest estimate of the total length of its coastline is over 700 km attributed to the very variable nature of its coastline characterized by bays, undulations, spikes, etc. and including as well a number of jetties.

At the extreme southeastern coastline, lies the Inland Sea (Khor Al Udeid) which has been proposed as a World Heritage to preserve and conserve its uniqueness. Equally at the southern end lie the magnificent sand dunes of Qatar that line the southeastern coastline.

Twelve islands belong to the state of Qatar. These are Halul (the only inhabited island in Qatar and is the main oil export terminal), Al Besheireya, Sheraouh, Al Ashat, Al Alia, Al Safleya, Amshat (also known as Banana Island), Umm Al Far, Umm Tais, Ras Rakan, Al Nakheel and Janan. All islands except Janan are located on the east and the north of Qatar. Amshat and Al Nakheel are both artificial islands originally sand bars and in the vicinity of most islands there are sand bars of varying sizes. There are also numerous fashts in Qatar marine zone (QMZ). Fashts are raised coral reefs such as Fasht Al Debil in NW Qatar.



Map of Qatar showing the position of the islands: 1. Halul, 2. Al Besheireya, 3. Sheraouh, 4. Ashat, 5. Al Alia, 6. Al Safleya, 7. Am Shat,8Umm Al Far, 9. Umm Tais, 10. Ras Rakan, 11. Al Nakheel and 12. Janan. FD-Fasht Ad Debil.

Soils and Landform in Qatar

The most detailed study on the geology of Qatar was presented by Claude Cavelier in 1970. Maps of Qatar's soils prepared for studies on aspects of the nature of the soils are patchy and in many cases focus on specific areas. However, a UNESCO (Qatar) publication (UNDP/FAO – 1973) detailing the soil types in Qatar is available.

Historically the land of Qatar is considered as 80% of Tertiary deposits and 20% Quaternary & Recent deposits. Paleozoic era deposits were only detected in Halul Island and Sheraouh Island. Sabkhas, sand accumulations, calcareous sands, sand terraces, etc. are all features of a Recent Age.

Qatar is basically flatland with slight undulation and a tilt from the west (Jebal Dukhan) towards the east. Any land feature that exceeds 60-70 m in height is referred to as a jabal (Ar. for hill/mountain). The land rises to a maximum of 103 m at one point only north of Sudanathil known as Taur Al Humair and is below surface at 6 m at Khor Al Udeid (a total relief of 109 m). Qatar's mainland is a stony desert with depressions of varying sizes and areas of rocky outcrops.

Landform classification as given by Batanouny (1981), details 6 landform types and later on gives 12 different landform types (Batanouny, 1986). In Abulfatih *et al.*, (2001) seven physiographic and soil type regions were recognized: Rocky desert, Depressions and seasonal waterways, Salt flats and salt marshes, Sand formation, Intertidal areas, Islands and Cultivated land. Detailed studies on sabkhas (salt pans) and sand dunes in Qatar (both in Arabic) were undertaken by M.M.Ashour *et al.*, and N.S.Umbabi and M.M.Ashour in (1983) and 1983, 1983 (2 parts) respectively.

The main recognized landforms are rocky and conglomerate hamdas (stony ground) and rocky ridges (together forming 87.86% of Qatar's mainland), depressions (including shallow depressions and deep depressions form 2.44%; sabkha formation is estimated as 6.06% and sand dunes form 3.12% of Qatar's mainland.

Qatar soil types, their total areas and percentages

Serial number	Soil Category	Series	Area in hectare	Percentage
1	Rawda Soils	A	23100	2.05
2		А	4520	0.39
3	Sabkha Soils	В	6517	0.58
4		В	63607	5.48
5	Stony/Rocky Soils	С	958072	82.44
6		C	62925	5.42
7	Sandy Soils	D	4775	0.42
8		D	31392	2.70
9	Cultivated land		6057	0.52
10	Total		1160965	100.00%

Source: M.H.Mudkur & S.M.Al Sheik (1973).

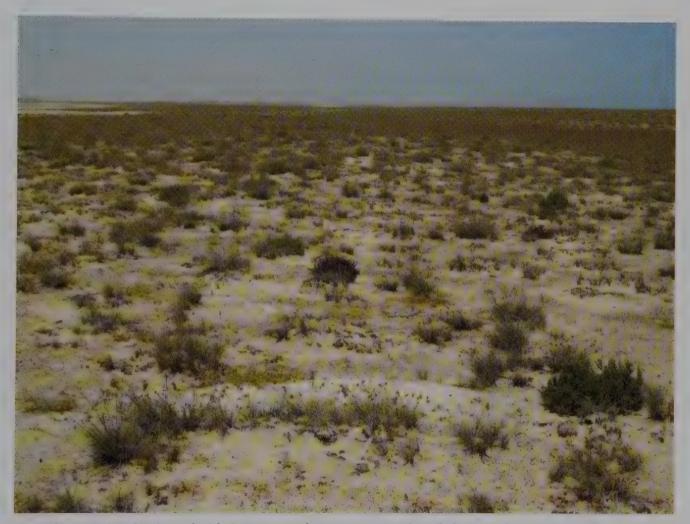
Generally the landform includes jabal formations, sand dunes and sabkhas which together contribute to near 15% of the mainland. Meanwhile, the main soil type [stony fragments impregnated with wind-blown sands and rocky outcrops] contribute to over 85% of the mainland.

Natural vegetation

Natural vegetation is sparse and confined to specific landforms. Most of the year round few trees and shrubs exist in depressions, along runnels and wadis. There are 9 trees in Qatar: *Prosopis cineraria* (Ghaf) an endangered species, *Acacia ehrenbergiana* (Salam), *Acacia tortilis* (Samr), *Ziziphus nummularia* (Sidr), *Ziziphus spina-christi* (Areen), the two epiphytes: Cocculus pendulus (Kheneiq) and the gymnosperm *Ephera foliata* (Alanda), the mangrove *Avicennia marina* (Qarm) and the naturalized invasive species *Prosopis juliflora* (Ghuweif).

Grasslands in Qatar

Grasslands are either composed of salt tolerant grasses such as Aeluropus and Sporobolus iocladus which could form pure stands or are mixed with few halophytic taxa such as Limonium axillare. These are usually coastal vegetation benefiting from the sea spray or few are on inland sabkhas. Perennial grasses, sedges and reeds of saline soils include Sporobolus ioclados (Sukham), Aeluropus lagopoides (Ikrish), Cyperus conglomeratus (Rasha), and Juncus rigidus respectively.



Coastal vegetation dominated with Cyperus conglomeratus on sandy soils forming dense growth (Ras Laffan NE Qatar).

Inland grasslands are variable. *Cymbopogon commutatus* forms pure stands in shallow depressions with hard compact sandy soils. *Panicum turgidum* grows best on sandy mounds and spreads across the mounds sometimes for almost 2 m across. These may be near coastal areas or on hilly grounds such as Dukhan jebels where wind-blown sands are stabilized by the plants. Inland sand dunes usually have

perennial grasses growing on their lower zones. There are few perennial grasses in Qatar which occur inland on sandy soils and include *Panicum turgidum* (Thumam), *Pennisetum divisum* (Thaymoom) *Cymbopogon commutatus* (Askhabar), *Lasiurus scindicus* (Daa), *Chrysopogon* species (Kureiz) and *Dichanthium* species (Halta).



Depression with compact sandy soils and with the perennial grass *Cymbopogon commutatus*. Note barren surroundings (red arrow)

At Dukhan, a very distinct zonation pattern is attributed to altitude, soil type and plant species.

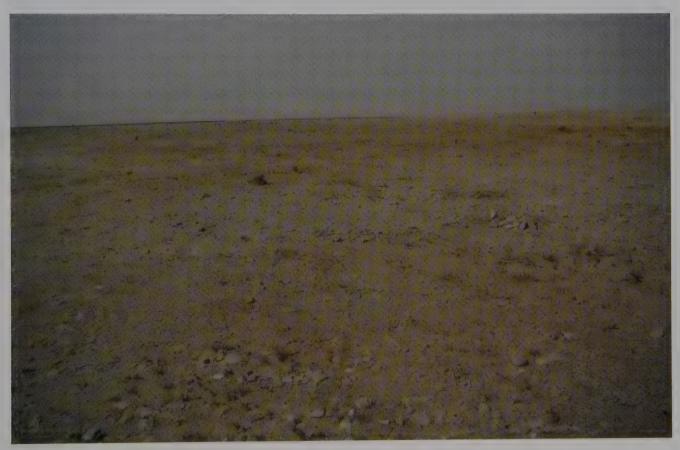


Panicum zone is quite distinct on the lower strata of the Dukhan jabals.

The Stony Desert

The stony desert also known as desert pavement (Barr Qatar/Hamad (Ar.)) is the dominant feature of Qatar's mainland. Hamad (Ar.) means the land that is unproductive/ unfruitful since its composition is stony fragments and pebbles (Hassa (Ar.)).

The stony desert varies in its composition and general features from one location to another. In some areas the whole stretch of land is covered with small fragments and is barren.



View of a barren stony desert (20 km N. of Al Khor).

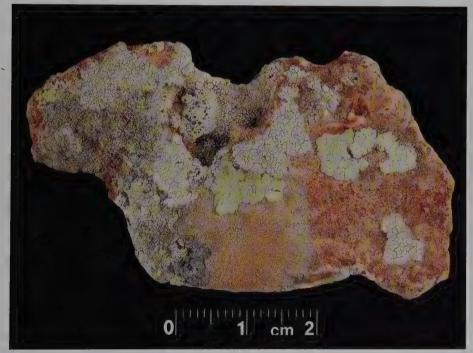
Some areas are covered with different shaped and coloured pebbles on top of a sandy firm ground; other sites are composed of rock fragments and fragments of fossil gastropods or coloured pebbles. Stony outcrops are equally common and may be barren or sometimes covered with crustose lichens.



Fossil gastropods and stony fragments.



Coloured pebbles on compact sandy soil.



Crustose lichens on limestone rock.

Though these are mostly barren, there exist desert plants thriving on the scanty soils trapped inbetween the stony fragment. Further, within this harsh landform, natural and man-made depressions of various depths retain enough rain water to sustain growth of annuals and a few woody species. However, plant cover is generally sparse and limited in species richness.

Shallow Depressions

The most common shallow depressions are roadside depressions. In Doha and main towns, roadside depressions are usually with rubble and few individuals of low woody species. Along the main network of the roads recently constructed are various depressions varying in sizes, depths, soil composition and plant species.

Low depressions retain rain water and support few shrubs and short-lived perennials. *Pulicaria undulata* is common in shallow depressions that retain rain water for longer periods. However, the most common species is the succulent xerophyte undershrub *Tetraena qatarense* deserving the country's sake name in being the most common plant in Qatar. Both species are dicots.



Perennial grasses and the widespread annual grass Stipa capensis are common in shallow depressions.



Shallow depression with wind-blown sands and plant growth dominated by perennial grasses (S. Al Wekeir).



Stony desert with *Acacia tortilis* scrub and *Stipa capensis* grass in shallow depression.

Roda/Rawda Depressions

A deep depression is referred to as a roda/rodah/rawdas/rawdat (Pl.). These may reach a maximum depth of 1.5 m and are filled with fine soil and rain-washed litter and are the best naturally occurring well-drained sandy-loamy soil in Qatar. They support the few large trees occurring in Qatar as well as undershrubs and seasonal growth.

Rawdas are scattered all over Qatar but are more frequent on the northeastern side of the mainland. In the past their fine soils were removed to use in farmlands. Gratefully, the Ministry of Environment (MoE ex Supreme Council for the Environment and Natural Reserves) set rules prohibiting removal of soils.



Rawda depression with mature Ziziphus trees and a dense ground cover of Convolvulus prostratus and grass weeds in S. Qatar.

Sand Dunes

Sand dunes in Qatar are either of marine origin characterized by the presence of shell fragments mixed with calcareous coarse sands or of land-origin and wind-blown recognized by their high content of quartz and variable sand grains. The sand dune fields near Mesaieed are referred to as the Nijyan and are Aeolian sands. Crescent-shaped sand dunes are referred to as Barchans.



Sand dunes in S. Qatar: with a sabkha depression (above) and next to the sea (below).

Rocky outcrops, hilly ground and Dahl formations

Hilly ground varies in altitude and bedrock formation. Most bedrock in Qatar is limestone. Dukhan jebels are in the range of 40-80 m high. In the vicinity of Zikreet, Mesa (Table formation)) are common and are highly eroded. All the lower strata are constituted of soft limestone and are wind eroded leaving the hill exposed with the top more compact surface in tact thus creating the characteristic "figures" of Zikreet jebels.



Limestone highly eroded at Zikreet.

The dissolution of layers of the soluble limestone bedrock is due to a process referred to as Karst which results in the appearance of sinkholes or dolines. Rain combines with atmospheric CO₂ and forms a weak carbonic acid which dissolves the limestone (Calcium carbonate) causing its dissolution. As the limestone bedrock dissolves a void is created which leads to the collapse of the upper surface. Collapsing earth sometimes forms sinkholes referred to as Dahl (Ar.) which are in fact shallow caves. In some dahls rain water is retained forming small pools. Dahl Al Haman in Doha is locally well known and is inhabited by feral pigeons.



Views of Dahl Al Hamam, Doha, Qatar.



In S. Qatar, hilly ground extends over a very large area. Wind erosion exposes the soft sandy lower strata and with time the top surface collapses creating large excavations. With time wind-blown sands settle in these and they may support annual growth and few woody species.

Large shallow depressions with good plant cover after the seasonal rains. Surrounding higher grounds are barren (S. Qatar).

Wetland

All wetland in Qatar are freshwater ponds of recycled water. These ponds support by their edges dense growth of reeds, *Tamarix* and species of disturbed locations. The water attracts many species of birds that feed on their organisms. The largest freshwater pond is at Abu Nakhla and is outside Doha. Smaller ponds of recycled sewage are in all large towns.



Phragmites reeds are common in water ponds: Above at Abu Nakhla and below in the vicinity of Ras Al Matbakh.



Sabkhas

Salt pans are known as sabkhas. Along the northeastern coastline, higher grounds representing the edge of the stony desert may end abruptly in a sabkha depression. These sabkhas are barren and gradually integrade into a vegetated sabkha, creeks and a mangrove forest beyond which lies the open sea. Such land formation occurs at Al Dhakhira on the northeastern coasstline of Qatar.



A view showing the gradation from the raised stony desert via a barren sabkha, to a vegetated sabkha with creeks and beyond the mangrove forest lies the open sea.

Sabkhas common along the coastline maybe vegetated with halophytes or when hyper saline, they are barren. The vegetated sabkhas vary in their species richness and species abundance. They may be with over 80% cover and composed of a single species.

The majority of the local halophytic species are members of the dicot family Amaranthaceae Subfamily Chenopodioideae. *Halopeplis perfoliata* stands as the most tolerant species of high salinity as compared to other halophytes and can form pure stands in sabkha depressions.



Sabkha with *Halopeplis perfoliata* community (Ras Laffan, NE Qatar).

Mangrove Forests

Naturally occurring and planted mangrove woodlands occur along the northern and eastern coastline in the intertidal zone at locations where the substrate is of a muddy-clayey sandy constitution. Only

one mangrove species occurs in Qatar and is Avicennia marina [Garm (Ar.)]. Naturally occurring mangroves are few. In the eighties the Ministry of Municipality and Agriculture embarked on mangrove plantation all around the coastline of Oatar. Success was mainly on the northeastern coastline (Al Dhakhira, Al Khor, Fewairet, Al Wakra and Ar Reweis) and poor growth was at a number of locations. Unsuccessful plantations were attributed to the nature of the sediment or higher salinity of the seawater (the southern and the western coastlines). Very dense mangrove forests are at Al Dhakhira and Fewairet. Those



First stages in the establishment of a natural mangrove forest.



Mangrove forest established with a large network of pneumatophores (breathing roots).

at Al Reweis (by the Port) and at Al Wakra have since been removed.
Mature mangrove saplings, bushes or trees cannot be transplanted because of their intricate anastomosing network of their root system.
Establishing mangrove growth in Qatar is only practiced by seedling plantations.

Mangroves form an extensive cable network of breathing roots known as pnuematophores.

Seasonal rains and annual growth

Qatar is classified as a hot subtropical desert (Meigs, 1953) and experiences very harsh arid climatic conditions in summer. The short winter period brings rains, coolness and growth of desert annuals. Though rains are erratic and scanty, they result in drastic changes of scenery in the desert and all forms of life surviving on it.

Perennials produce new shoots and last season's seeds germinate. Ephemerals and annuals grow and flowers producing various colors and shapes in shallow and deep depressions and on the few cm of trapped soil in the crevices of the stony desert.



First seasonal rains in 2011-2012 rainy season (Al Jumailia, Qatar).

Desert flowers of Qatar

Winter time is when the arid desert becomes colourful. Trees, shrubs, herbs and grasses bear flowers of various shapes and colour.













The cool winter is also a time for family recreation. Locals camp in tents all over Qatar to enjoy the scenery, greenery and the coolness of the weather. People of all ages usually group as families and friends during the spring season in search of Nature's gifts in the form of the much priced Faqaa (the desert truffles), Atar/Yarawa (fruits of *Glossonema varians*) and edible leaves of Huwa (Launaea capitata) and Malbo (Convolvulus prostratus).



Gifts from the desert (Yarawa, Huwa and Fagaa the desert truffles).

The winter season with its short spell of coolness and availability of seeds and fruits brings to Qatar a large number of migrant birds: some passing over and others to breed on the coastline, coastal

woodlands and the uninhabited islands. All islands have been reported as nesting grounds for local birds and migrant birds. Terns (Sterna spp.) nest on Amshat Island (Banana Island) and Al Besheireya Island. Herons nest on Al Besheireya and Socotra cormorants nest on Al Alia Island. Al Alia Island is a nesting location for the Socotra cormorant. At the same period flamingoes, seagulls, herons and terns may be encountered feeding on the shallow waters in the vicinity of the island. Umm Al Far Island, near Al Dhakhira, is also known as a nesting location.



Eggs of the Reef Heron in their characteristic high nests (Al Beshireyia Island, Qatar).



Chick and an egg of Sterna which nests on stony ground (Al Beshireya Island, Qatar).

Overgrazing

Qatar is a country with a wealth of domestic animals particularly camels, goats and sheep. These animals are fed most of the year round. However, locals believe that grazing on natural range plants improves their animals' health. During the season of plant growth animals graze on the natural vegetation. There is no doubt that some practice of range management is necessary since the natural vegetation cannot sustain the continuous



Overgrazing by goats and sheep causing total degradation of a coastal sandy dune which was vegetated with *Cyperus conglomeratus* on coastal sands.

increase in the numbers of domestic animals and the adverse effects of over grazing are evident at some locations. Recently a law has been passed prohibiting grazing on natural vegetation. There is no doubt this will improve the situation of the natural vegetation in the near future.

Invasive species in Qatar

Over the years a number of exotic plants have been introduced to Doha City and other major towns. Few of these woody species have since managed to establish themselves along various roadside routes in Qatar. *Prosopis juliflora* is the most invasive species which have since appeared outside towns mainly by roadsides of highways and is now found in all types of habitats. The species is well known as an invasive species and is now included in the flora as a naturalized species.

Recently the grass *Pennisetum* setaceun has been planted



Pennisetum setaceum

everywhere in Doha. The species appears in two forms of green and purple variants, is wind pollinated and wind dispersed. As expected it is now self-setting wherever a water source is found in Doha.

Flowering plants in the flora of Qatar

The Flowering plants are of 2 groups commonly known as the Dicotyledons and the Monocotyledons based on the number of cotyledons (seed leaves) inside the seeds which appear when the seeds germinate.

The Dicotyledons (dicots) are the Class Magnoliopsida with 6 subclasses:

- 1. Magnoliidae, 2. Hamamelididae, 3. Caryophyllidae, 4. Dilleniidae, 5. Rosideae and,
- 6. Asteridae.

The Monocotyledons (monocots) are flowering plants considered as more advanced than the Dicotyledons. They are commonly recognized as of 3 distinct groups:

- 1. Those with different coloured perianth: commonly green sepals and coloured petals,
- 2. Those with a perianth of tepals (both of same colour) and,
- 3. Those without petals or sepals but a perianth modified into bracts or scales or are with naked flowers.

Taxonomically the monocots were known as the Class Liliopsida of the Angiosperms or flowering plants and comprised 5 subclasses:

- 1. Alismatidae with 4 orders and 16 families, 2. Arecidae with 4 orders and 6 families,
- 3. Commelinidae with 7 orders and 16 families, 4. Zingiberidae with 2 orders and 9 families and 5. Liliidae with 2 orders and 19 families.

Ten families have been recorded in the flora of Qatar. The majority of the recorded species belong to the grass family Poaceae (Gramineae). These are the grasses with their special fruit known as grain where the seeds are part of the pericarp (fruit). Grains are not seeds though treated as seeds. Beside the grasses, species richness is low, usually 1-3 species in a genus. The 10 monocot families are as follows:

Hydrocharitaceae, Cymodoceaceae, Zannichelliaceae, Liliaceae, Juncaceae, Palmae, Typhaceae, Commelinaceae, Gramineae = Poaceae and the Cyperaceae.

Floras worldwide are arranged according to one of the renowned systems. Systems including those of Engler and Prantl, Hutchinson and Cronquist are based mainly on morphological characters with additional information such as phytogeography, ecology. etc. Recently systems are based on more substantial information i.e. their core constitution – genetics - being a more diagnostic stable character.

Herbaria worldwide are now reshuffling their earlier arrangements to follow the APG III system agreed upon by the Angiosperm Phylogeny Group.

The flora of Qatar is a small flora up to date not exceeding 440 species of mostly annual and ephemeral desert species and a number of weeds. In 1981, Batanouny in his "Ecology and Flora of Qatar" followed

the system of Engler and Prantl. He recognized orders, families and within each family he followed an alphabetical order for genera and species. In 1982, Al Amin followed an alphabetical order throughout. Equally in neighboring Saudi Arabia, Al Hadidi and Collenette followed an alphabetical order.

In the newly accepted **APGIII** system the earlier classification of flowering plants has changed particularly at the higher categories. These have been included in this book. However for ease of use to all those seeking plant names of Qatar's flora, an alphabetical order based on families is followed.

Of the clades and orders in the **APGIII** system prescribed for the monocotyledons, the species in the flora of Qatar fall under 10 families belonging to 5 orders.

Within the Clade Monocots, the Order Alismatales with 3 families (Cymodoaceae, Hydrocharitaceae and Potomogetonaceae) and the Order Liliales with only one family. Within the Clade Commelinids, 3 orders with 6 families occur in the flora. These are: Arecales (Arecaceae), Commelinales (Commelinaceae) and Poales with 4 families: Cyperaceae, Juncaceae, Poaceae and Typhaceae.

Of all these families the maximum representation in species number is the family Poaceae. Tribal classification is included in the description of the taxa. An alphabetical order of the tribes is followed for the grasses.

A Note on the Monocotyledons in The Plant Kingdom

The Plant Kingdom comprises the Bryophytes, the Ferns, the Gymnosperms and the Flowering Plants.

In the flora of Qatar, there is one species of each of the first 3 groups which collectively are referred to as the non-flowering plants and about 400 species of flowering plants.

The Bryophytes are non-vascular plants including the Hornworts, the Liverworts and the Mosses. The Ferns include the Whisk ferns, the Club mosses, the Horsetails and the ferns. These have a vascular system but do not produce seeds (except for the seed ferns).

The Gymnosperms have a more advanced vascular system. They are non-flowering but they produce seeds. The gymnosperms comprise the Cycads, Ginkgoes, Conifers and the Gnetophytes.

Non-flowering plants in the flora of Qatar

The Bryophytes

Desert and arid conditions as are experienced in Qatar do not support the growth of bryophytes which need moist habitats to flourish. Yet one moss species – Funaria, a cosmopolitan species was collected from various locations during the rainy season including nurseries, potted plants and surfaces of clay water pots.





Moss (Funaria)

The Ferns or Pteridophytes

Only one species was recorded in Qatar. Ophioglossum polyphyllum occurs on wind-blown sands in central and on coarse sands in northeastern Qatar. Throughout its records it occurs on high mountains whereas in Qatar it is encountered at 20 – 40m above sea level.



Fern (Ophioglossum polyphyllum)

The Gymnosperms

Only one gymnosperm species is recorded in Qatar. Ephedra foliata is relatively rare and occurs in rawda depressions in Central Qatar. Ephedra is much favored by camels. It can only be detected by its ropelike twined stem below the trees on which it is an epiphyte.



Gymnosperm (Ephedra foliata)

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Order

Family

Monocots/

Arecales

Arecaceae

Commelinids

Scientific Name

Phoenix dactylifera L., Sp. Pl., ed. 1, 1188 (1753).

Habit

Perennial palm.

Description

Palm trees with very large stiff pinnate leaves similar to cultivated dates, more leafy and with poor fruit production and extensive suckering.

Habitat

Coastal saline sandy soil.

Distribution

Large community at Umm Bab (Al Hamala), sporadic S. of Al Reweis.

Ind/Exo/Cult

Indigenous.

Local Use

Range plant (Camels graze on leaves).





Nakeel; نخیــــل

Order

Family

Monocots/

Commelinales Commelinaceae

Commelinids

Scientific Name

Commelina benghalensis L., Sp. Pl., ed.1, 41 (1753).

Habit

Perennial herb.

Description

Decumbent-creeping herb rooting at the nodes; leaves clasping the stem broadly lanceolate. Flowers in axillary congested cymes, blue with fertile and sterile yellow stamens, subtended by boat-shaped bract; fruit 1-2-seeded capsule.

Habitat

Garden soil.

Distribution

A newly introduced weed spreading by seeds and by rooting at the nodes in gardens and fields; hardly eradicated because of its attractive flowers. Frequent at Al Shahaneeya farms and Doha gardens.

Ind/Exo/Cult

Introduced possibly with ornamentals.

Local Use

Ornamental





الفكي (إسم غير محلي); (إسم غير محلي) (Ibreeq al faki (not a local name)

Order

Family

Monocots

Alismatales

Cymodoceaceae

Scientific Name & Syn.

Halodule uninervis (Forssk.) Asch. In Boiss., Fl.Orient.5:24 (1882).

Syn.

Zostera *uninervis* Forssk., Fl. Aegypt.-Arab. CXX 157 (1775).

Habit

Perennial seagrass.

Description

Seagrass with long rhizomes giving linear leaves at nodes.

Habitat

Marine; in shallow depths.

Distribution

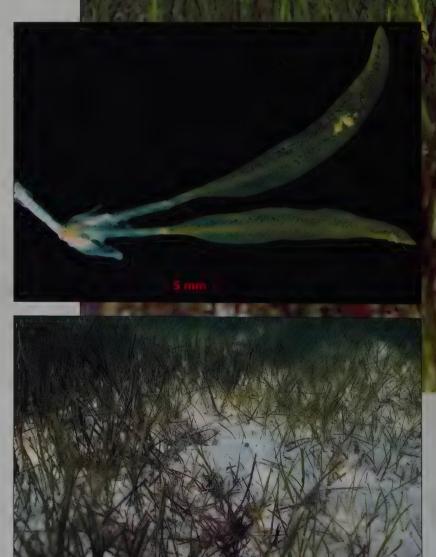
Widespread seagrass at shallow depths forming dense meadows.

Ind/Exo/Cult

Indigenous.

Local Use

Important habitat and feed for marine organisms.





Hasheesh bahri; حشیش بحري

Order

Family

Monocots/

Poales

Cyperaceae

Commelinids

Scientific Name & Syns.

Bolboschoenus glaucus (Lam.) S. G. Smith, Novon. 5:101 (1995).

Syns.

Scirpus tuberosus Desf., Fl. Atlant. 1:50 (1798); **Scirpus maritimus** many authors

Habit

Perennial sedge.

Description

Sedge giving upright shoots from a creeping rhizome; culms triangular; spikes digitate, congested.

Habitat

Wetland.

Distribution

Rare in Qatar reported at Ras Ushirij as associated with *Typha*.

Ind/Exo/Cult

Introduced.



Order

Family

Monocots/
Commelinids

Poales

Cyperaceae

Scientific Name & Syns.

Cyperus conglomeratus Rottb., Descr. Pl. Rar. Progr. 16 (1772).

Syns.

Cyperus jeminicus Rottb., op.cit. 24, C. effusus Rottb. Op.cit. 16, Cyperus conglomeratus Rottb. var. aucheri (Jaub. & Sp.) C. B. Clarke (1895); var. effuses (Rottb.) Kukenth (1936); var. multiculmis (Boeck) Kukenth (1936).

Habit

Perennial sedge.

Description

Variable sedge recognized as 3 distinct varieties based on the number and width of the spikelets: var. *aucheri*, var. *effuses* and var. *multiculmis* which is the most common with rhizomatous stiff clumps and tillers; culm 3-sided; spikes terminal, digitate, compact; fruit nutlet.

Habitat

Saline sandy soil.

Distribution

Widespread in coastal areas with sandy soil; occasional on roadsides where moisture is available and soil salinity is high.

Ind/Exo/Cult

Indigenous.

Local Use

Range sedge.





Rasha, Tunda; رشا، تنده

Order

Family

Monocots/

Poales

Cyperaceae

Commelinids

Scientific Name

Cyperus laevigatus L., Mant. Alt. 179 (1771).

Habit

Perennial sedge.

Description

Rhizomatous sedge with 3-sided culms and forming tillers; spikes compact heads borne sideways; spikelets minute; fruit nutlet.

Habitat

Moist-wet areas.

Distribution

Near water (pumps) in agricultural fields; Abu Samra.

Ind/Exo/Cult

Introduced.

Local Use

Fodder sedge.







Saed; عسعسد

Clade Monocots/ Commelinids Order Poales Family Cyperaceae

Scientific Name

Cyperus rotundus L., Sp. Pl., ed. 1, 45 (1753).

Habit

Perennial sedge.

Description

Sedge with glossy leaves and terminal branched inflorescences; stolon terminates in small dark corms deeply buried in the soil.

Habitat

Garden soil and agricultural fields.

Distribution

Common notorious weed of agriculture and gardens difficult to eradicate because of the corms.

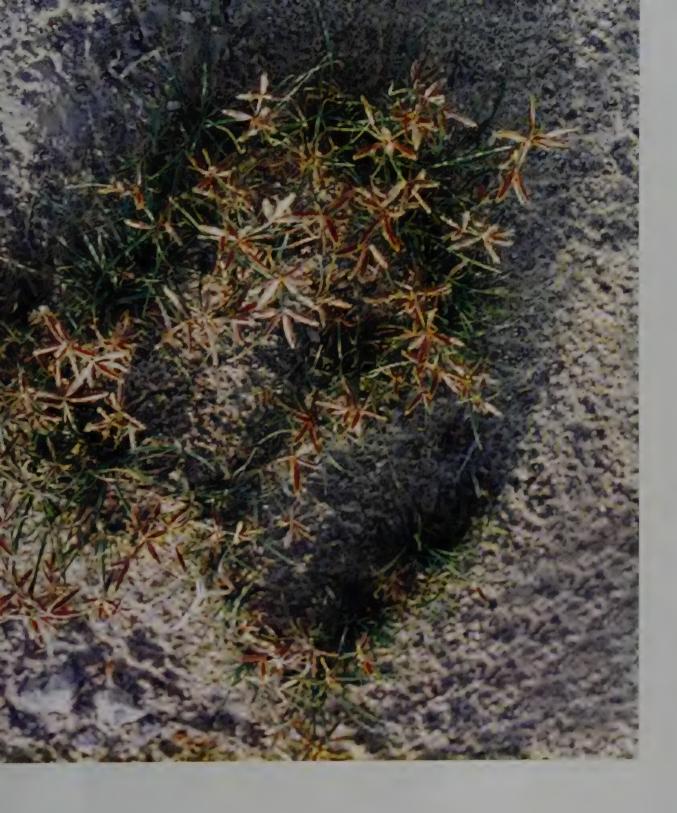
Ind/Exo/Cult

Introduced with garden soil.

Local Use

Mowed with lawn grasses and used as fodder.





Saed; عسعسد

Order

Family

Monocots

Alismatales

Hydrocharitaceae

Scientific Name & Syns.

Halophila ovalis (R.Br.) Hook. f., Fl. Tasman. 2:45 (1858).

Syns.

Caulinia ovalis R. Br. (1810); Kernera ovalis (R.Br.)

Schultes (1829); Halophila linearis Den

Hartog (1956).

Habit

Perennial seagrass.

Description

Dioecious submerged seagrass with opposite ovate leaves; male flowers pedicellated, female flowers sessile.

Habitat

Marine; in shallow depths.

Distribution

Least common seagrass at shallow depths.

Ind/Exo/Cult

Indigenous.

Local Use

Important habitat and feed for marine organisms.









Hasheesh bahri; حشیش بحري

Order

Family

Monocots

Alismatales

Hydrocharitaceae

Scientific Name & Syns.

Halophila stipulacea (Forssk.) Asch., Sitzb. Naturf. Freunde Berlin 3 (1867).

Syns.

Zostera stipulacea Forssk., Fl. Aegypt.-Arab.158 (1775); **Thalassia stipulacea** (Forssk.) Konig (1805); **Halophila balfourii** Solereder (1913).

Habit

Perennial seagrass.

Description

Dioecious submerged seagrass with rhizomes and rooting at the nodes; leaves oblong-lanceolate; stipules transparent.

Habitat

Marine; in shallow depths.

Distribution

Common seagrass at shallow depths.

Ind/Exo/Cult

Indigenous.

Local Use

Important habitat and feed for marine organisms.





Hasheesh bahri; حشیش بحري

Order

Family

Monocots/

Poales

Juncaceae

Commelinids

Scientific Name

Juncus rigidus C. A. Mey., Pl. Atland. 1:32 (1798).

Habit

Perennial rush.

Description

Rush with dense growth from a strong rhizome; culms cylindrical; flowers unlike grasses are of sepals and petals, glumaceous and appear set sideways; fruit nutlet.

Habitat

Saline sandy soil.

Distribution

Coastlines and swamps of brackish water and wetland.

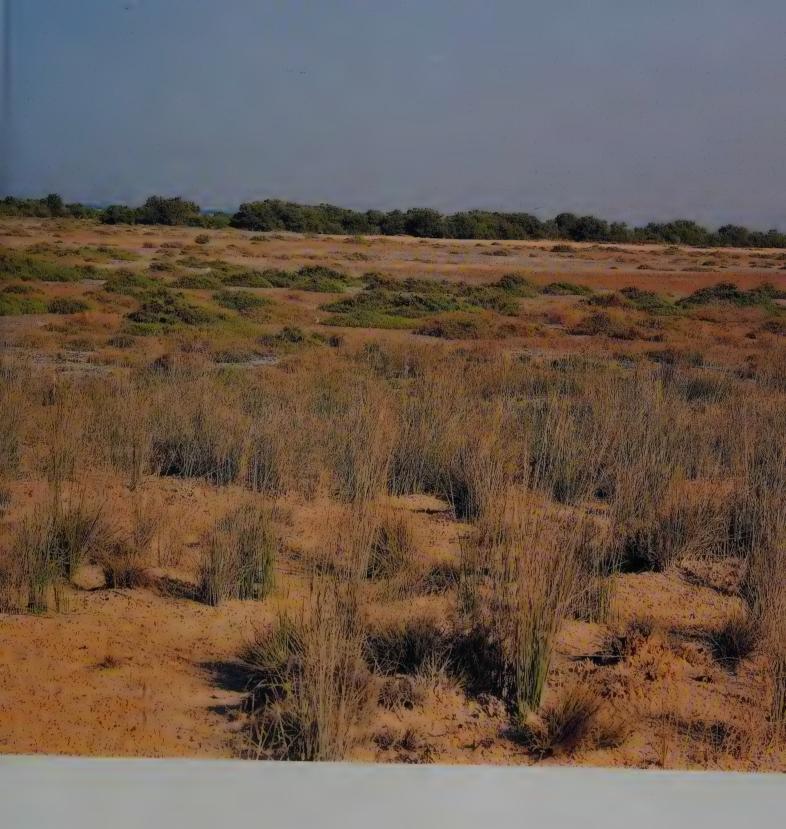
Ind/Exo/Cult

Indigenous.

Local Use

Range plant.





Rasha, Tanda; رشا، تنده

Clade **Monocots** Order Liliales Family

Scientific Name & Syn.

Asphodelus tenuifolius Cav. Anal. Ciene. Nat. 3:46, t 27f.2, (1801).

Syn.

Asphodelus fistulosus L. var. tenuifolius (Cav.) Baker, J. Linn. Soc. London (Bot.) 15:276 (1876).

Habit

Annual herb.

Description

Slender herb with fibrous roots and basal linear leaves; flowering scape branched with 10-20 flowers; tepals glossy, white with red stripes; fruit globose-ovoid capsule.

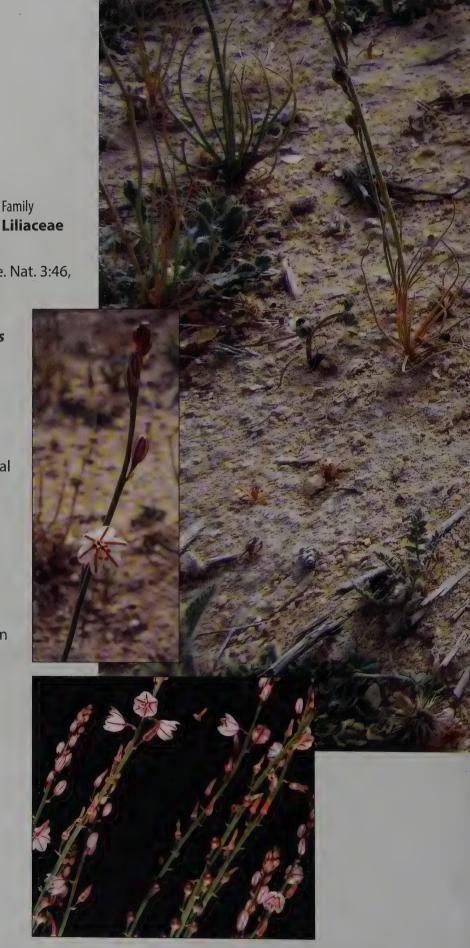
Habitat

Sandy loamy soil.

Distribution

Widespread occurring in aggregations in shallow depressions and an occasional weed of fields.

Ind/Exo/Cult Indigenous.





Brough, Unsul; بروق، عنصل

Order

Family

Monocots

Liliales

Liliaceae

Scientific Name & Syn.

Dipcadi erythraeum Webb & Berthel., Phyt. Canar. 3(2):341 (1848).

Syn.

Hyacinthus serotinus Forssk., Fl. Aegypt.-Arab. Suppl. 209 (1775), non L. (1753).

Habit

Perennial herb.

Description

Bulbous herb with onion-like white bulb; leaves 2-3, long, linear-lanceolate with lower ends partly buried in the sand. Flowers on short scape, few, of 6 maroon tepals.

Habitat

Sandy stony soil.

Distribution

Widespread occurring sporadic among limestone fragments covered by fine sand in sandy depressions; common in the vicinity of Dukhan-Umm Bab.

Ind/Exo/Cult

Indigenous.

Local Use

Bulbs edible.









Mesailemo, Besailemo; مصيلمو، بصيلمو

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Subtribe

Andropogoninae

Scientific Name & Syn.

Chrysopogon gryllus (L.) Trin., Fund. Agrost., 188 (1820).

Syn.

Andropogon gryllus L., Cent. Pl., 2:33 (1756).

Habit

Perennial grass.

Description

Tussock-forming grass hardened and stunted by excessive grazing forming dark cushions; dry most of the year round and producing new growth with onset of the rainy season.

Habitat

Sandy mounds and in runnels and slopes on dry rocky ground.

Distribution

Central and south Qatar.

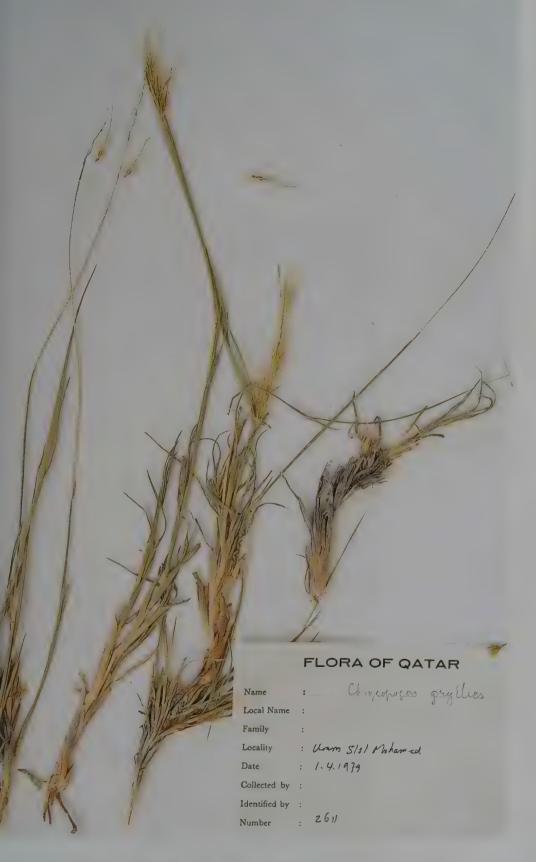
Ind/Exo/Cult

Indigenous.

Local Use

Range grass heavily grazed by camels.





Gharaz, Akkar, Halta; غرز، عكر، هلتا

Order

Family

Monocots/
Commelinids

Poales

Poaceae,

Tribe: Subtribe Andropogoneae: Andropogoninae

Scientific Name & Syns.

Chrysopogon plumulosus Hochst. ex A. Rich., Tent. Fl. Abyss. 2:450 (1850).

Syns.

Chrysopogon quinqueplumis Hochst. ex A. Rich.; **Chrysopogon aucheri** var. **quinqueplumis** (Hochst. ex A. Rich.) Stapf. Bull. Misc. Inform., Kew 1907:21 (1907).

Habit

Perennial grass.

Description

Tussock-forming grass with open lax golden panicles. Spikelets one sessile and a pair pedicellated with bent plumed awns.

Habitat

Sandy soil in runnels and shallow depressions.

Distribution

Occasional in N. and C. Qatar.

Ind/Exo/Cult

Indigenous.

Local Use

Range grass.







Gharaz, Akkar, Jarm, Selian; غرز، عکر، جرم، صلیان

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Subtribe
Andropogoneae:

Andropogoninae

Scientific Name & Syn.

Cymbopogon commutatus (Steudel) Stapf in Kew Bull. 1907:211 (1907).

Syn.

Cymbopogon parkeri Stapf in Kew Bull. 1929:10 (1929).

Habit

Perennial grass.

Description

Aromatic tussock-forming grass with spongy adventitious roots and usually curly basal leaves; culms long ending in lax panicles. Spikes raceme-like, light green with awned spikelets.

Habitat

Compact sandy soil.

Distribution

Widespread forming pure stands in depressions with compact sands. Common by roadsides and in fields.

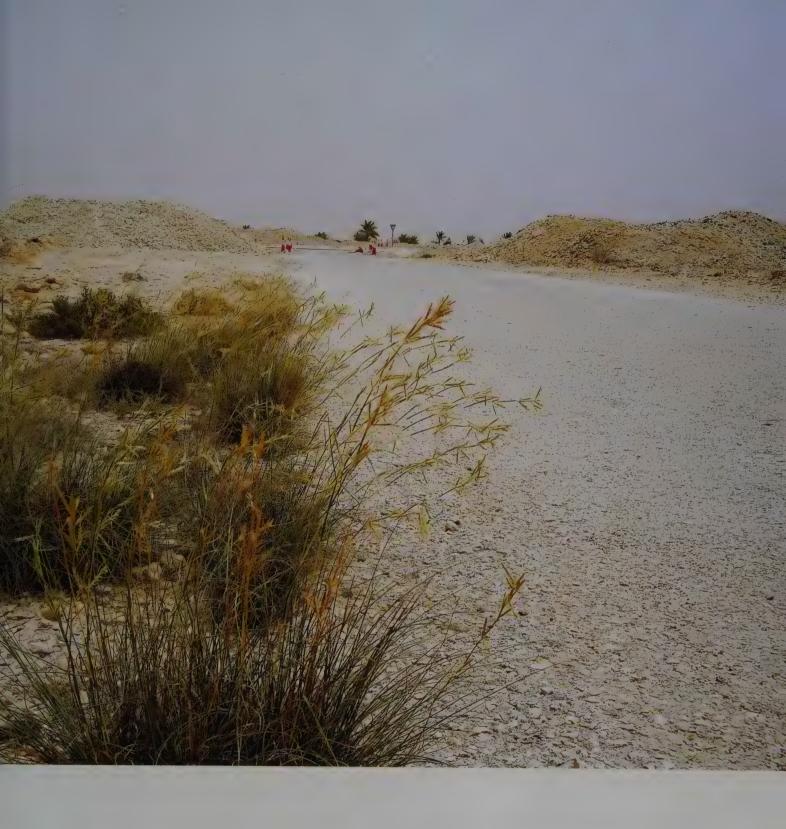
Ind/Exo/Cult

Indigenous.

Local Use

Range grass and a herbal medicine.





Askhabar; أصخبر

Order

Family

Monocots/

Poales

Poaceae,

Commelinids Tribe: Subtribe

Andropogoniae: Andropogoninae

Scientific Name & Syn.

Dichanthium annulatum (Forssk.) Stapf in Prain, Fl. Trop. Afr. 9:178 (1917).

Syn.

Andropogon annulatus Forssk., Fl. Aegypt.-Arab. 173 (1775).

Habit

Perennial grass.

Description

Robust tussock-forming grass with slender inflorescences; spikes 2-4 sub-digitate at the ends of culms; spikelets slim, awned.

Habitat

Depressions with clayey sandy soil.

Distribution

Widespread in N. and C. Qatar forming dense but small stands and sporadic along roadsides; common in depressions where moisture is retained and common as a notorious weed of cultivated land.

Ind/Exo/Cult

Indigenous.

Local Use

Range grass.





Zamzam, Humeira; زمزم، حمیره

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Subtribe Andropogoneae:

Andropogoninae

Scientific Name & Syns.

Dichanthium foveolatum (Delile) Roberty,

Boissiera 9:170 (1960).

Syns.

Andropogon foveolatus Delile, Descr. Egypte, Hist. Nat. 16, t. 8,2 (1814); **Eremopogon foveolatus** (Delile) Stapf in Prain Fl. Trop. Afr., 9:183 (1917).

Habit

Perennial grass.

Description

Robust tussock-forming grass similar to **D.annulatum** but with a single spike at the end of the culm.

Habitat

Sandy-stony depressions.

Distribution

Similar to **D.annulatum** and usually mixed stands with both species occur.

Ind/Exo/Cult

Indigenous.

Local Use

Range grass





Zamzam, Humeira; زمزم، حميره

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Subtribe Andropogoneae: Andropogoninae

Scientific Name & Syn.

Hyparrhenia hirta (L.) Stapf in Prain, Fl. Trop. Afr. 9:315 (1918).

Syn.

Andropogon hirtus L., Sp. Pl., ed.1, 1046 (1753).

Habit

Perennial grass.

Description

Robust grass with reddish long lax panicles; spikelets with bent awns.

Habitat

Stony grounds.

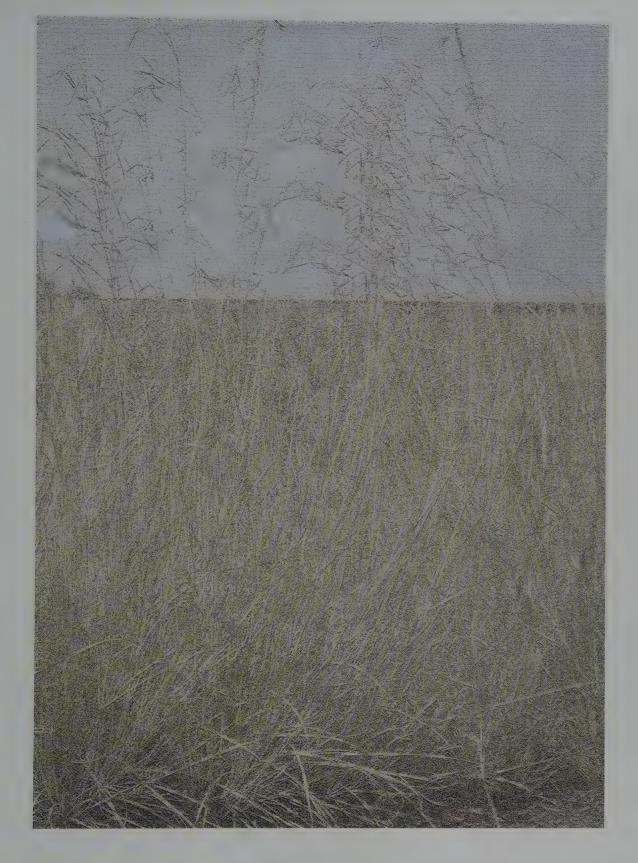
Distribution

Reported by Obeid (1975), listed by Bolous (1978), and reported by El Amin (1983) as distributed in C. and N. Qatar and Dukhan.

Ind/Exo/Cult

Introduced.

Local Use



Safsouf, Humeira, Gharaz; صفصوف، حميرة، غرز

Order

Family

Monocots/
Commelinids

Poales Poaceae,

Tribe: Subtribe Andropogoneae: Andropogoninae

Scientific Name & Syn.

Sorghum bicolor (L.) Moench, Meth. 207 (1794).

Syn.

Holcus bicolor L., Mant. Alt. 301 (1771).

Habit

Perennial grass.

Description

Tall grass with open panicles and large grains in globose spikelets.

Habitat

Sandy clayey soil.

Distribution

Roadside weed (escapes of cultivation and from household garden brooms).

Ind/Exo/Cult

Introduced.

Local Use

Fodder grass.







Zura bayad, Dere; ذره بياض، دري

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Subtribe Andropogoneae:

Andropogoninae

Scientific Name & Syns.

Sorghum halepense (L.) Pers., Syn. Pl. 1:101 (1805).

Syns.

Holcus halpensis L., Sp. Pl., ed.1, 1047 (1753); Andropogon halepensis (L.) Brot., Fl. Lusit.1:89 (1804).

Habit

Perennial grass.

Description

Tall reddish tinged grass with rhizomes and open panicles; spikelets lanceolate, soft, easily detachable.

Habitat

Sandy-clayey soil.

Distribution

Roadside weed (Johnson grass) near residential areas and fields.

Ind/Exo/Cult

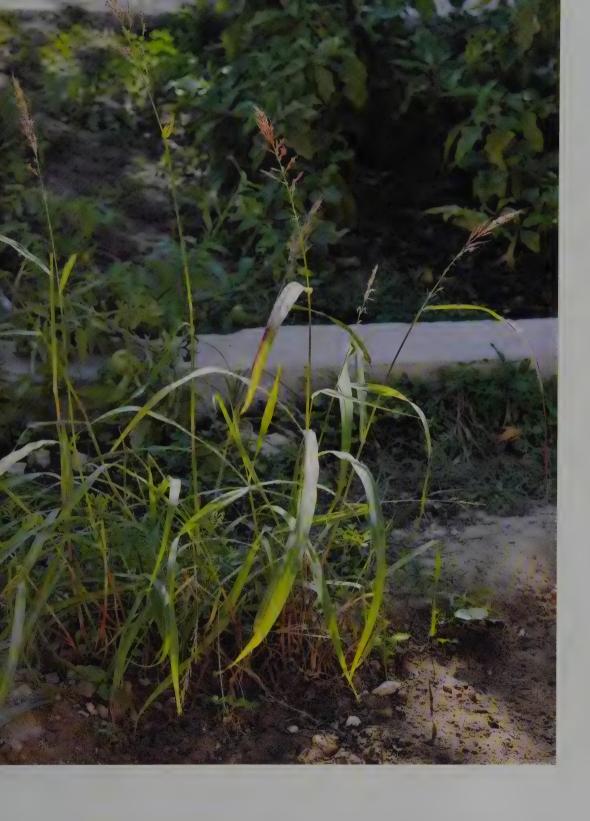
Introduced.

Local Use

Fodder grass.







Helaiyat, Safrand; حلییات، صفرند

Order

Family

Monocots/
Commelinids

Poales

Poaceae,

Tribe: Subtribe Andropogoneae: Rottboelliinae

Scientific Name & Syn.

Lasiurus scindicus Henrard in Blumea 4:514 (1941).

Syn.

Lasiurus hirsutus (Vahl) Boiss., Fl. Orient. 3(4):146

(1859), comb. Illegit.

Habit

Perennial grass.

Description

Tussock-forming grass with silvery spikes and easily broken rachis.

Habitat

Roadsides, hill slopes, sandy ground and sand dunes.

Distribution

Widespread throughout Qatar and a common roadside weed in Doha and major cities where a moisture source is available.

Ind/Exo/Cult Indigenous.

Local Use

Range grass (not much favoured).







Daa; صعـه

Order **Poales**

Family

Monocots/
Commelinids

Poaceae,

Tribe: Aristideae

Scientific Name

Aristida abnormis Chiov., Ann. Inst. Bot. Roma 8:48 (1903).

Habit

Annual grass.

Description

Erect grass with basal branching; culms ending in open panicles; spikelets 3-awned; column twisted and awns unequal with the central awn longer.

Habitat

Sandy stony soil.

Distribution

Occasional with the onset of the rains.

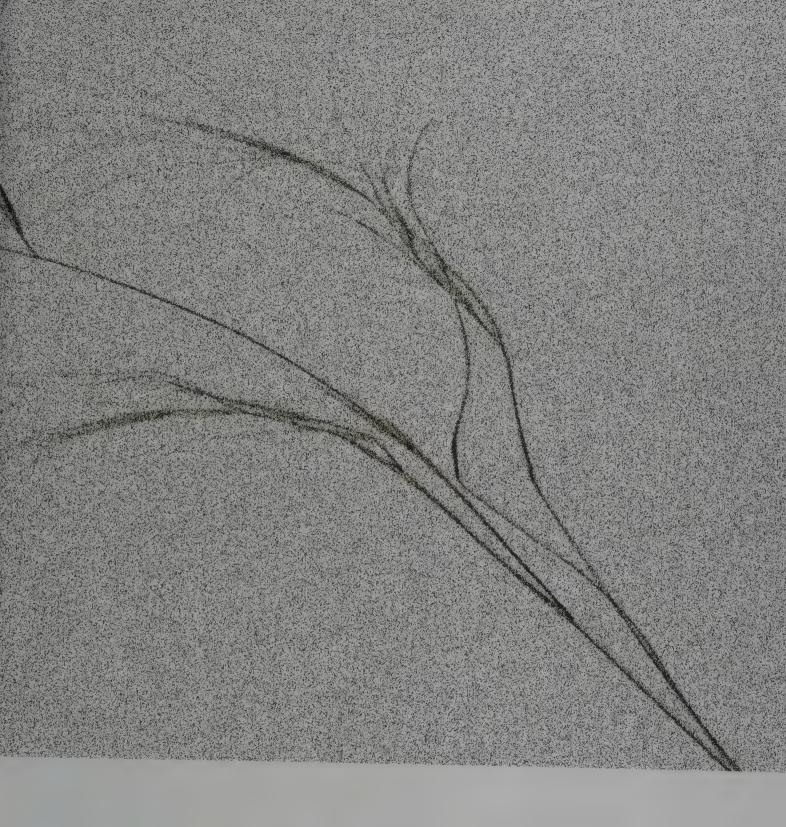
Ind/Exo/Cult

Indigenous.

Local Use

Range plant.





Houmra; حمــراء

Monocots/
Commelinids

Poales

Poaceae, Tribe: Aristideae

Aristida adscensionis L., Sp. Pl., ed.1, 82 (1753).

Scientific Name

Ephemeral grass.

Habit

Slender grass with 3-awned spikelets without a separating column; awns unequal, the central Longer.

Habitat

Sandy stony soil.

Distribution

Widespread with the onset of the rains.

Ind/Exo/Cult

Indigenous.

Local Use





حمــراء ;Houmra

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Aristideae

Scientific Name & Syns.

Aristida mutabilis Trin. & Rupr., Sp. Gram. Stipac. 150 (1842).

Syns.

Aristida cassanellii Terracc; Aristida meccana Trin. et Rupr.(1842); A. mutabilis var. aequilonga Trin. & Rupr., Gram. Stipac. 152 (1842).

Habit

Ephemeral grass.

Description

Slender grass with open panicles similar to **Aristida adscensionis** but differs in the presence of a column separating the awns from the grain; awns 3, unequal; callus a tuft of hairs.

Habitat

Sandy stony soil.

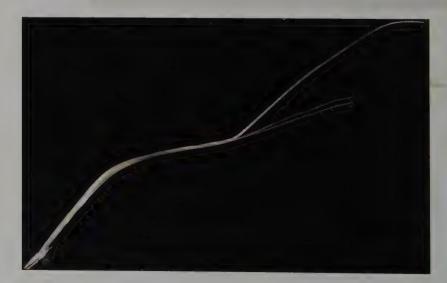
Distribution

Widespread with the onset of the rainy season and more common in N. Qatar.

Ind/Exo/Cult

Indigenous.

Local Use





Houmra; حمــراء

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Aristideae

Scientific Name

Stipagrostis obtusa (Delile) Nees, Linnaea 7:293 (1832).

Syn.

Aristida obtusa Delile, Descr. Egypte, Hist. Nat. 175, t.13, f.2 (1814).

Habit

Annual grass.

Description

Slender tufted grass with one node to inflorescence. Spikelets with slivery feathery awns ending in an obtuse tip.

Habitat

Sandy stony soil and shallow depressions.

Distribution

N. and S. Qatar; Salwa road.

Ind/Exo/Cult

Indigenous.

Local Use





Nassi; نصــي

Order

Family

Monocots/

Poales

Poaceae,

Commelinids Tribe: Aristideae

Scientific Name & Syn.

Stipagrostis plumosa (L.) Munro ex T. Anderson, J. Linn. Soc. Bot. 5 Suppl. 1:40 (1860).

Syn.

Aristida plumosa L., Sp. Pl., ed. 2, 1666 (1763).

Habit

Annual grass.

Description

Slender tufted grass with feathery awns ending in an acute tip.

Habitat

Sandy stony soil.

Distribution

Northern Qatar by roadsides and in depressions and along Abu Samra route, Umm Slal and Mesaieed.

Ind/Exo/Cult

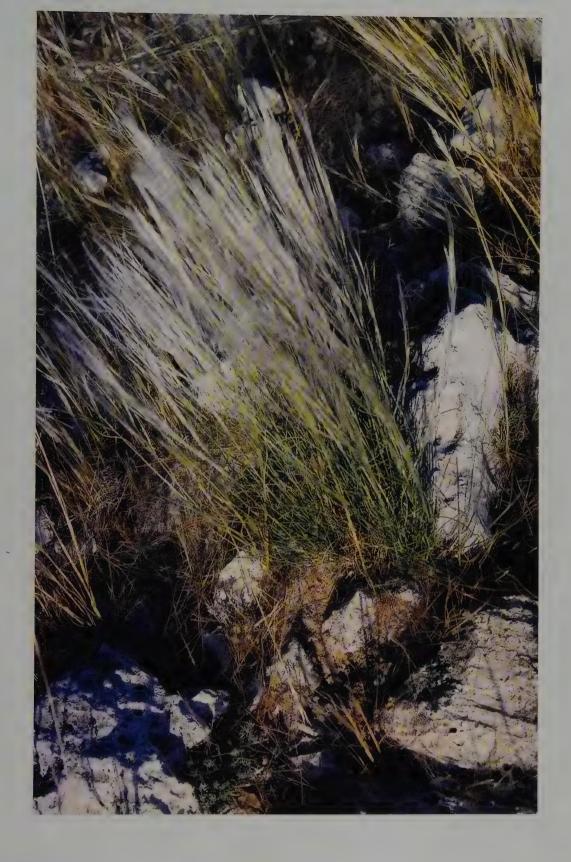
Indigenous.

Local Use









Nassi; نصــي

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Arundineae

Scientific Name

Arundo donax L., Sp. Pl., ed.1, 81 (1753).

Habit

Perennial reed.

Description

Tall reed with rigid rhizomes and large leaves. Spikes with numerous hairy spikelets on lax panicles.

Habitat

Moist and wet areas.

Distribution

Rare. Reported by Batanouny (1981) as one record at Al Wabrah.

Ind/Exo/Cult

Introduced.



Sab, Galam; غاب، قلم

Order

Family

Monocots/

Poales

Poaceae,

Commelinids Tribe: Arundineae

Scientific Name & Syns.

Phragmites australis (Cav.) Trin. ex Steud., Nomencl. Bot. ed. 2:324 (1840).

Syns.

Arundo australis Cav. (1799); Phragmites communis var. stenophylla Boiss. Fl. Orient. 5:563 (1884).

Habit

Perennial reed.

Description

Reed up to 2m high with thick rhizomes and stout leafy culms terminating in very large open and lax yellow panicles.

Habitat

Wetland.

Distribution

Common in depressions with brackish water, sewage disposal sites and areas of high water table in Doha and elsewhere.

Ind/Exo/Cult

Introduced becoming naturalized.

Local Use

Fodder grass.







قصب، غاب ;Gasab, Ghab

Order

Family

Monocots/
Commelinids

Poales

Poaceae,

Tribe: Arundineae

Scientific Name & Syn.

Schismus arabicus Nees, Fl. Afr. Austral. 111.1:422 (1841).

Syn.

Festuca calycina sensu Forssk. non Loefl.

Habit

Annual grass.

Description

Decumbent slender pale green grass with shallow fibrous root system and dense radiating vegetative growth; culms very slender ending in small spicate panicles.

Habitat

Sandy stony ground.

Distribution

Widespread weed of gardens; roadsides and wasteland.

Ind/Exo/Cult

Indigenous.

Local Use

Range plant.







Henaita; حنيطـه

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Arundineae

Scientific Name & Syn.

Schismus barbatus (L.) Thell., Bull. Herb. Boissier, ser. 2, 7:391 (1907).

Syn.

Festuca calycina Loefl., Iter Hispan. 166 (1758).

Habit

Annual grass.

Description

Erect slender pale green grass with scanty root system; culms very thin ending in elongated spicate inflorescences. This species resembles **Schismus arabicus** but is much more slender and rather more upright.

Habitat

Sandy stony ground.

Distribution

Widespread weed of gardens; roadsides and wasteland.

Ind/Exo/Cult

Indigenous.

Local Use

Range plant.





Henaita; حنيطـه

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Aveneae

Scientific Name & Syn.

Avena sterilis L., Sp. Pl., ed. 2, 118 (1762) subsp. *ludoviciana* (Durieu) Gillet & Magne, Nouv. Fl. Franc., ed. 3, 352 (1875).

Syn.

Avena ludoviciana Durieu, Actes Soc. Linn.

Bordeaux 20:41 (1855).

Habit

Annual grass.

Description

Attractive grass with nodding spikes; spikelets on long slender pedicels and with long dark and bent awns and open glumes.

Habitat

Sandy stony soil.

Distribution

Widespread.

Ind/Exo/Cult

Indigenous.

Local Use

Range plant.







شوفان بري ;Shofan barri

Order

Family

Monocots/
Commelinids

Poales

Poaceae,

Tribe: Aveneae

Scientific Name

Phalaris minor Retz., Observ. Bot. 3:8 (1788).

Habit

Annual grass.

Description

Soft grass up to 15 cm high with weak growth and a single shoot terminating in ovoid spikes; spikes less than 2 cm long with few spikelets.

Habitat

Sandy clayey soil.

Distribution

Rare. Collected from Al Magda.

Ind/Exo/Cult

Indigenous.

Local Use







Shaeer al far; شعير الفار

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Avenea

Scientific Name & Syn.

Phalaris paradoxa L., Sp. Pl., ed. 2, 2:1665 (1763).

Syn.

Phalaris paradoxa L. var. praemorsa (Lam.) Coss. & Durieu, Expl. Sci. Algerie 2:25 (1854).

Habit

Annual grass.

Description

Variable grass according to growth conditions; spikes cylindrical, variable in size; spikelets broad, linear-lanceolate.

Habitat

Moist ground and cultivated fields.

Distribution

Common weed of lawns, gardens, roadsides and fields.

Ind/Exo/Cult

Introduced.

Local Use

Fodder grass.





Shaeer al far; شعير الفار

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae, **Tribe: Aveneae**

Scientific Name

Phleum arenarium L., Sp. Pl., ed. 1, 60 (1753).

Habit

Annual grass.

Description

Very slender grass of 15-20 cm length with a single culm 4-5-noded terminating in spike-like soft racemes of 4-6 cm long.

Habitat

Garden soil.

Distribution

A weed native to S. Europe recently recorded in Doha gardens, most likely introduced with imported lawn seeds.

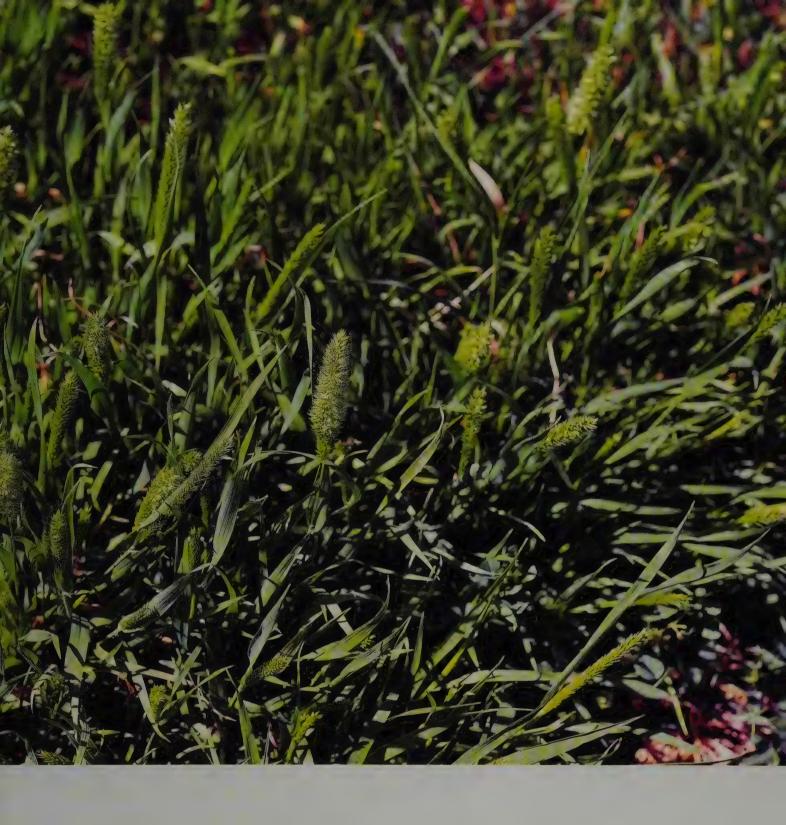
Ind/Exo/Cult

Introduced.

Local Use

Lawn grass.





Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Aveneae

Scientific Name & Syns.

Polypogon monspeliensis (L.) Desf., Fl. Atlant. 1:67 (1798).

Syns.

Aeluropus monospliensis L., Sp. Pl., ed. 1, 61 (1753); *Phalaris cristata* Frossk., Fl. Aegypt.-Arab. 17 (1775).

Habit

Annual grass.

Description

Leafy erect-decumbent grass with terminal compact panicles of congested pale green-yellow awned spikelets breaking from above downwards exposing a naked rachis.

Habitat

Gardens and fields.

Distribution

Weed of cultivated fields and gardens; more common during the rains.

Ind/Exo/Cult

Introduced.

Local Use

Fodder grass.





Waghal; وغـــل

Order

Family

Monocots/
Commelinids

Poales

Poaceae,

Tribe: Aveneae

Scientific Name & Syns.

Rostraria pumila (Desf.) Tzvelev, Novosti Sist. Vyssh. Rast. 7:48 (1971).

Syns.

Koeleria pumila (Desf.) Domin; var. glabrescens Tackh. (1941); Lophochloa pumila (Desf.) Bor, Grass. Burm. Ceyl. Ind. Pak: 445 (1960).

Habit

Annual grass.

Description

Slender grass with paniculate lax green inflorescences. Spikelets minute.

Habitat

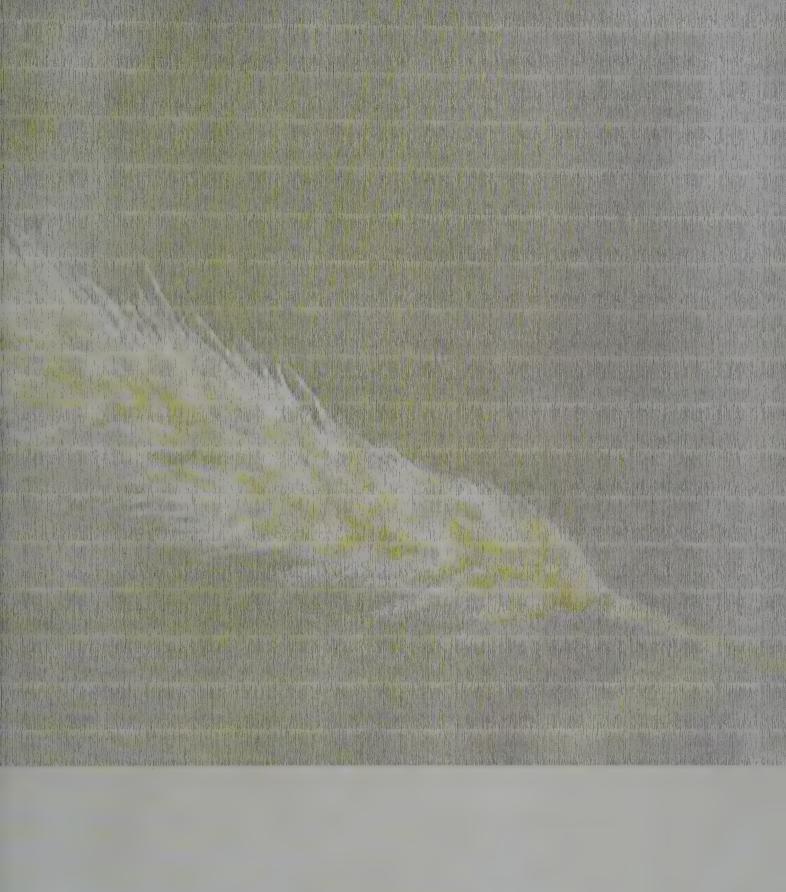
Moist garden soil.

Distribution

Weed of cultivation.

Ind/Exo/Cult

Introduced.



Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Brachypodieae

Scientific Name & Syns.

Brachypodium distachyum (L.) P. Beauv., Ess.

Agrostogr. 101:155 (1812).

Syns.

Bromus distachyus L., Cent. Pl. 2:8 (1756); Trachynia distachya (L.) Link, Hort. Bot. Berol. 1:43 (1827).

Habit

Annual grass.

Description

Rigid grass with stiff raceme-like spikes, with 6-8 compact long-awned spikelets.

Habitat

Sandy clayey and sandy stony soil.

Distribution

Rodats with deep soil and a weed of cultivation.

Ind/Exo/Cult

Indigenous.

Local Use





Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Bromeae

Bromus danthoniae Trin. in C. A. Mey., Verz. Pfl.

Cauc. Meer 24 (1831).

Habit

Annual grass.

Description

Grass with open, few, raceme-like spikes. Spikelets awned and awns slightly deflexed.

Habitat

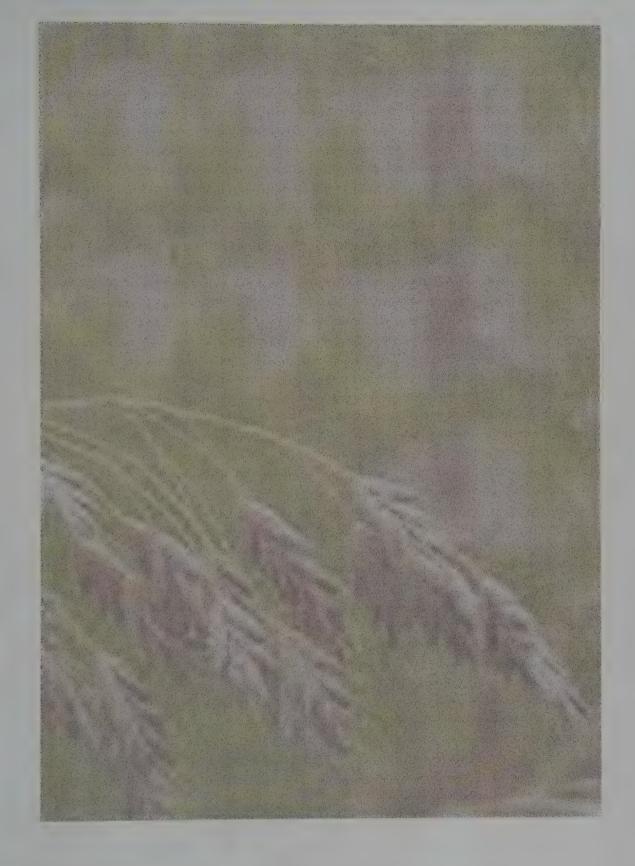
Semi desert with rock fragments.

Distribution

Rare. Reported by Batanouny (1981) as one record at Al Sudd in Doha.

Ind/Exo/Cult

Most likely an introduced weed.



Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Bromeae

Scientific Name & Syns.

Bromus madritensis L., Cent. Pl. 1:5 (1755).

Syns.

Bromus villousus Forssk., Fl. Aegypt.-Arab. 23 (1775); Bromus haussknechtii Boiss., Fl. Orient. 5:648 (1884).

Habit

Annual grass.

Description

Bushy grass with numerous basal culms ending in broom-like spikes. Spikelets awned.

Habitat

Semi desert with rock fragments.

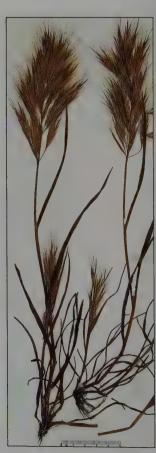
Distribution

Rare. Reported by Batanouny (1981) as a record at Umm Slal Mohamed along the road to Doha.

Ind/Exo/Cult

Introduced.







Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Bromeae

Scientific Name & Syns.

Bromus scoparius L., Cent. Pl. 1:6 (1755).

Syns.

Bromus scoparius L. var. psilostachys Halacsy., Consp. Fl. Graec. 3:399 (1901); var. *strenantha* Stapf, Bull. Misc. Inform., Kew 1907:309 (1907).

Habit

Annual grass.

Description

Grass with compact short spikes and awned spikelets; awns curved upwards.

Habitat

Cultivated ground.

Distribution

Occasional along the Umm Slal to Al Shamal route.

Ind/Exo/Cult

Most likely an introduced weed from neighbouring countries.





Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Centropodieae

Scientific Name & Syn.

Centropodia forskaolii (Vahl) Cope, Kew Bull. 37:658 (1983).

Syn.

Asthenatherum forskaolii (Vahl) Nevski, Trudy Sredne-Aziatsk. Gosud. Univ. ser. 8b, Bot. 17:8 (1934).

Habit

Short-lived perennial grass.

Description

Small hairy grass with sparse but long pilose hairs; branches few, basal; leaves few with very short straight laminas; culms few-nodded carrying terminal raceme-like spikes set alternating on the rachis. Spike of 5-7 spikelets.

Habitat

Sandy-stony wadis.

Distribution

Rare; occurring in sandy wadi beds in the vicinity of Sudanatheil, S. Qatar.

Ind/Exo/Cult

Indigenous.

Local Use





Gasaba; قصبأ

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Cynodonteae

Scientific Name

Chloris gayana Kunth, Revis. Gramin. 1:293, t.58 (1830).

Habit

Perennial grass.

Description

Robust grass with dense basal growth giving upright culms ending in 12-20 digitate spikes; spikelets arranged along 2 rows, softly awned.

Habitat

Moist areas.

Distribution

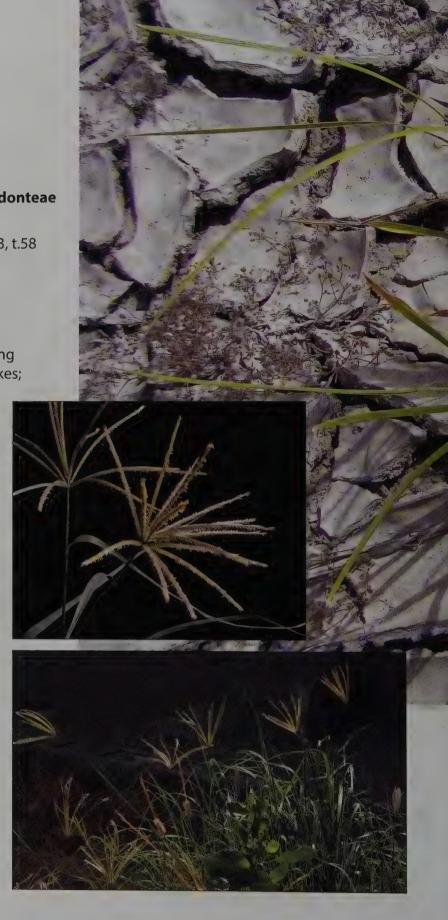
Widespread in fields, lawns and roadsides where a water source is available.

Ind/Exo/Cult

Introduced; probably spread during transport of imported Rhodes hay and as an escape of cultivation.

Local Use

Fodder grass.





Rhodes; رودس

Order

Family

Monocots/
Commelinids

Poales

Poaceae,

Tribe: Cynodonteae

Scientific Name & Syns.

Chloris virgata Sw., Fl. Ind. Occid. 1:203 (1797).

Syns.

Chloris barbata Sw., Fl. Ind. Occid. 1:200 (1797); **Chloris pubescens** Lagasea, 1808; C. **meccana** Hochst. & Steud. ex Schltdt., Linnaea 18:158 (1844).

Habit

Annual grass.

Description

Variable grass pending on growth conditions with dense vegetative growth and tall culms terminating in digitate 5-7 spikes of variable sizes; spikelets arranged along 2 rows, awned.

Habitat

Garden soil.

Distribution

Widespread on moist ground and also grown as a lawn grass.

Ind/Exo/Cult

Indigenous.

Local Use

Lawn grass mauned as fodder.





Khazamzam; خزمزم

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Cynodonteae

Scientific Name & Syns.

Cynodon dactylon (L.) Pers., Syn. Pl. 1:85 (1805).

Syns.

Panicum dactylon L., Sp. Pl., ed. 1, 58 (1753); **Cynodon dactylon** (L.) Pers. var. **villosus** Regel. in Bull. Soc., Nat. Mosc. 41:305 (1868).

Habit

Perennial grass.

Description

Slender grass with runners and adventitious roots at nodes giving tufts of leafy shoots ending in terminal spikes; spikes 3-5, digitate, slender.

Habitat

Moist ground.

Distribution

Widespread all over Qatar in rodat depressions, rain pools, by roadsides, in fields, lawns and gardens.

Ind/Exo/Cult

Indigenous.

Local Use

Grown as a lawn grass; mowed as fodder.





Najeel, Teel; نجیل، تیل

Order

Family

Monocots/
Commelinids

Poales Poaceae,

Tribe: Eragrostideae

Scientific Name & Syns.

Aeluropus lagopoides (L.) Trin. ex Thwaites, Enum. Pl. Zeyl.:374 (1864).

Syns.

Dactylis lagopoides L., Mant. 1:33 (1767); **Aeluropus villosus** Trin. ex C.A. Mey., Verz. Pfl.

Casp. Meer: 18(1831); *A. littoralis* (Gouan) Parl. var. *repens* (Desf.) Coss. & Durieu, Expl. Sci. Algerie. 2: 155 (1855); *A. repens* (Desf.) Parl., Fl. Ital. 1: 462.

Habit

Perennial grass.

Description

Grass with creeping stems, mat-forming and giving erect short shoots not exceeding 10 cm high; leaves soft; spikes terminal, slender, bluish-tinged.

Habitat

Saline sandy soil.

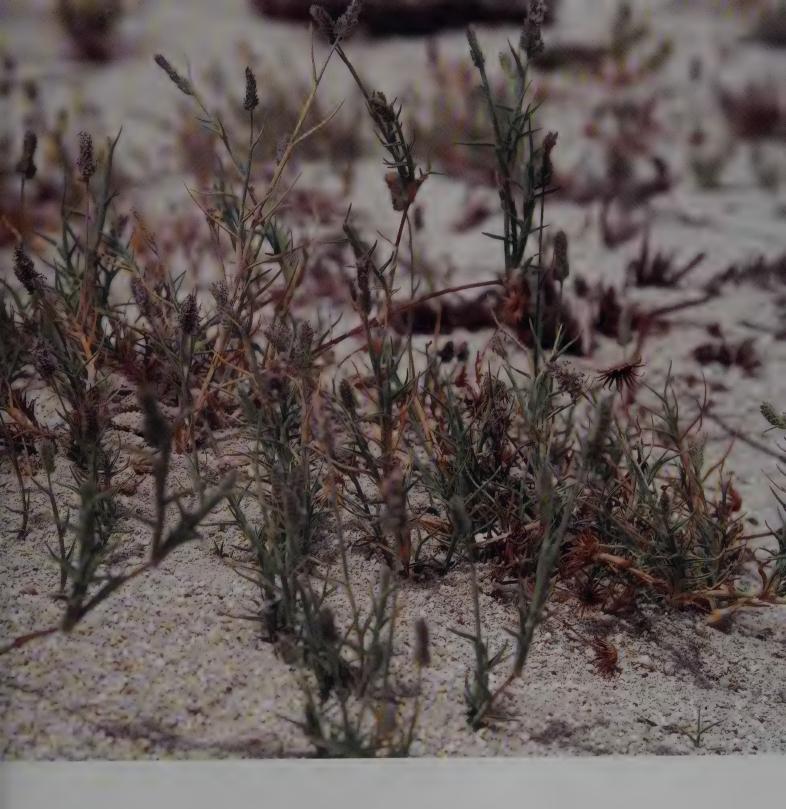
Distribution

Widespread and invading irrigated areas; common in agricultural fields, rain pools and shallow depressions with saline sandy soil.

Ind/Exo/Cult Indigenous.

Local Use Range grass.





عکــرش ;lkrish

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Eragrostideae

Scientific Name & Syn.

Aeluropus littoralis (Gouan) Parl., Fl. Ital. 1:461 (1848).

Syn.

Poa littoralis Gouan, Fl. Monsp. 470 (1765).

Habit

Perennial grass.

Description

Grass with creeping stem giving tough erect rigid shoots not exceeding 10 cm high and forming compact mats; spikes short, dense, white.

Habitat

Sabkhas and highly saline sandy soil.

Distribution

Widespread and more common than Aeluropus lagopoides forming pure stands of grassland on highly saline soils.

Ind/Exo/Cult

Indigenous.

Local Use





عكـرش ;lkrish



Order

Family

Monocots/

Poales Poaceae,

Commelinids

Tribe: Eragrostideae

Scientific Name & Syn.

Dactyloctenium aegyptium (L.) Willd., Enum. Pl. Hort. Berol. 1029 (1809).

Syn.

Cynosurus aegyptius L., Sp. Pl., ed. 1, 72 (1753).

Habit

Annuals or biennial grass.

Description

Variable decumbent grass with radiating and branching shoots terminating in 3-4 digitate spikes; spikelets compact on flat rachis and pointing downwards; grains reddish-brown, corrugated.

Habitat

Garden soil and fields.

Distribution

Widespread as a garden and field weed.

Ind/Exo/Cult

Indigenous.

Local Use

Fodder grass.





Naeem al saleeb, Rijl al hurbaiya; نعيم الصليب، رجل الحربيه

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Eragrostideae

Scientific Name

Dactyloctenium aristatum Link, Hort. Berol. 1:59 (1827).

Habit

Annual grass.

Description

Small prostrate-decumbent grass rooting at the lower nodes; culm terminating in 3-4 digitate spikes; spikes and spikelets similar to Dactyloctenium aegyptium but with more pronounced, longer and deflexed awns.

Habitat

Shallow sandy depressions.

Distribution

Occasional along Al Khor-Al Shamal area in shallow natural or man-made depressions.

Ind/Exo/Cult

Indigenous.

Local Use

Range plant.





Najm; نجــم

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Eragrostideae

Scientific Name & Syn.

Desmostachya bipinnata (L.) Stapf in Dyer Fl. Cap. 7:632 (1900).

Syn.

Briza bipinnata L., Syst. Nat., ed. 10, 2:875 (1759).

Habit

Perennial grass.

Description

Tussock-forming grass with basal growth arising from thick rhizomes. Culms long, ending in long and narrow spikes.

Habitat

Moist grounds.

Distribution

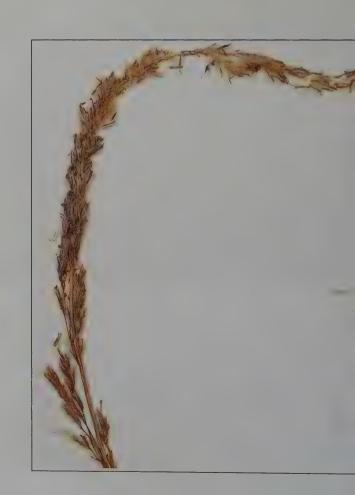
Rare in vicinity of wetlands and in fields near built basins for artesian well.

Ind/Exo/Cult

Introduced.

Local Use

Fodder grass.





Halfa (not a local name); (إسم غير محلي)

Order

Family

Monocots/
Commelinids

Poales

Poaceae,

Tribe: Eragrostideae

Scientific Name & Syns.

Eragrostis cilianensis (All.) Vignolo ex Janch., Mitt. Naturwiss. Vereins Univ. Wein 5 (9):110 (1907).

Syns.

Briza eragrostis L., Sp. Pl., ed.1, 70 (1793); **Poa** *cilianensis* All., Fl. Pedem. 2:246, t. 91, 2 (1785).

Habit

Annual grass.

Description

Slender grass with numerous basal culms ending in panicles; spikelets breaking from top downwards at maturity.

Habitat

Fields, gardens and roadsides.

Distribution

Collected from Al Wabara and Doha gardens; weed at edges of cultivated fields and by roadsides after the rains.

Ind/Exo/Cult

Indigenous.





Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Eragrostideae

Scientific Name & Syns.

Eragrostis ciliaris (L.) R. Br. in Tuckey, Narr. Exp. Congo. App. 478 (1818).

Syns.

Poa ciliaris L., Syst. Nat. ed. 10, 2:875 (1759); Eragrostis ciliaris var. brachystachya Boiss., Fl.

Orient. 5:582 (1884).

Habit

Annual to short-lived perennial grass.

Description

Slender grass; culms with few nodes ending in soft long spicate inflorescences. Spikes cup-shaped with long soft bristles.

Habitat

Compact sandy clayey soil.

Distribution

Rare in rodat and in vicinity of cultivated fields; collected from Al Magda.

Ind/Exo/Cult

Indigenous.

Local Use





Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Eragrostideae

Scientific Name & Syn.

Eragrostis pilosa (L.) P. Beauv., Ess.

Agrostogr. 162, 175 (1812).

Syn.

Poa pilosa L., Sp. Pl., ed. 1, 68 (1753).

Habit

Annual grass.

Description

Slender grass with erect short culm ending in branched lax inflorescences. Spikes and spikelets minute.

Habitat

Sandy clayey soil.

Distribution

Collected from Al Magda; a weed of fields and gardens.

Ind/Exo/Cult

Indigenous.

Local Use





Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Eragrostideae

Scientific Name & Syn.

Halopyrum mucronatum (L.) Stapf in Hook., Ic. Pl. 25 t. 2448 (1896).

Syn.

Eragrostis mucronatum (L.) Deflers, Bull. Soc. Bot. France 34:69 (1887), non Roem. & Schult.(1817).

Habit

Perennial grass.

Description

Tall rigid grass with culms terminating in narrow, long raceme-like spikes; spikes short and broad, ovate in outline with 5-10 spikelets alternately arranged.

Habitat

Coastal dunes.

Distribution

Coastal dunes on north-eastern Qatar, Fewairet and Abu Samra.

Ind/Exo/Cult

Indigenous.

Local Use







Order

Family

Monocots/

Poales

Poaceae,

Commelinids Tribe: Eragrostideae

Scientific Name & Syn.

Leptochloa fusca (L.) Kunth, Rev. Coram. 1:91 (1829).

Syn.

Diplanchne fusca (L.) P. Beauv. ex Roem., Syst. Veg. 2:615 (1817).

Habit

Annual or short-lived perennial.

Description

Grass with culms ending in elongated and spreading raceme-like inflorescences. Spikes long and very narrow with numerous minute spikelets.

Habitat

Wet-moist ground.

Distribution

Rare. Reported as a weed of moist areas in Doha gardens.

Ind/Exo/Cult

Introduced.

Local Use





Order

Monocots/ **Commelinids** **Poales**

Scientific Name & Syn.

Ochthochloa compressa (Forssk.) Hilu in Kew Bull. 36: 560 (1981).

Syn.

Panicum compressum Forssk., Fl. Aegypt-Arab: 18 (1775); Eleusine compressa (Forssk.) Asch. & Schweinf ex Chr., Dansk. Bot. Ark. 4(3):12 (1922).

Habit

Perennial grass.

Description

Creeping stoloniferous decumbent grass rooting at the nodes and giving tufted growth and culms with digitate spikes; spikelets compressed, flat, on a short rachis.

Habitat

Stony depressions overlain with wind-blown sand.

Distribution

Widespread throughout Qatar covering large areas with its distantly spreading shoots.

Ind/Exo/Cult

Indigenous.

Local Use

Range grass.





Najm, Suneim, Ghatab, Tundhab; نجم، صنیم، غتب، تنذب

Order

Family

Monocots/

Poales Poaceae,

Commelinids

Tribe: Eragrostideae

Scientific Name & Syn.

Sporobolus ioclados (Nees ex Trin.) Nees, Fl. Afr. Austral.111.1:161 (1841).

Syn.

Sporobolus arabicus Boiss., Pl. Orient. 2 (13): 47 (1854).

Habit

Perennial grass.

Description

Tussock-forming grass forming mounds usually barren at the centre; spikes on lax open panicles.

Habitat

Saline sandy soils.

Distribution

Widespread on coastal saline sometimes forming pure stands; occasional by roadsides in depressions with clayey soil and in vicinity of farms.

Ind/Exo/Cult

Indigenous.

Local Use

Range plant.





صخام ;Sukham

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Eragrostideae

Scientific Name & Syn.

Sporobolus spicatus (Vahl) Kunth, Rev. Gram. 1:67 (1829).

Syn.

Agrostis spicatus Vahl, Symb. Bot. 1:9 (1790).

Habit

Perennial grass.

Description

Short tufted rigid pale green grass forming dense ground growth; culms ending in very narrow cylindrical spikes.

Habitat

Moist ground.

Distribution

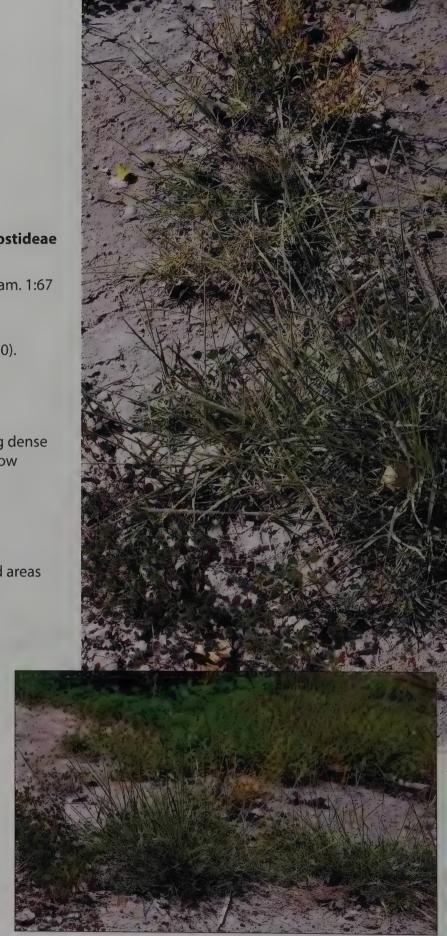
Common grass of roadsides and cultivated areas particularly after the rains.

Ind/Exo/Cult

Indigenous.

Local Use

Range grass.





صخــام; صخــام

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Paniceae

Scientific Name & Syn.

Cenchrus ciliaris L., Mant. Pl. Alt.:302 (1771).

Syn.

Pennisetum cenchroides Rich. in Pers., Syn. Pl. 1:72 (1805), nom. superfl.

Habit

Annual grass.

Description

Small grass with upright culms terminating in spicate inflorescences; spikes cup-shaped and arranged on a zigzag rachis, densely ciliate with cilia pointing upwards. Bracts originating from the base of the cup.

Habitat

Sandy soil.

Distribution

Common as weed of tree plantations and agricultural fields.

Ind/Exo/Cult

Possibly introduced with early expansion in agriculture.

Local Use







Darab, Sabat; صباط، صباط

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Paniceae

Scientific Name

Cenchrus echinatus L., Sp. Pl., ed. 1, 1050 (1753).

Habit

Annual grass.

Description

Grass with erect culms ending in short raceme-like spikes. Spikelets 6-10 covered with rigid clinging bristles.

Habitat

Sandy clayey soil and cultivated land.

Distribution

Weed of lawns, gardens and fields and is common in tree plantations.

Ind/Exo/Cult

Introduced.

Local Use





Darab, Sabat; حراب، صباط

Order

Family

Monocots/

Poales

Poaceae,

Commelinid

Tribe: Paniceae

Scientific Name

Cenchrus pennisetiformis Hochst. & Steudel. in Steud., Syn. Pl. Glumac. 1:109 (1854).

Habit

Annual grass.

Description

Grass with erect culms terminating in short spicate inflorescences. Spikes cup-shaped with free bracts and inner fused bracts; cilia soft and pointing upwards.

Habitat

Moist ground.

Distribution

Vicinity of irrigated areas.

Ind/Exo/Cult

Indigenous.

Local Use





دراب، سباط، صباط ;Darab, Sabat

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Paniceae

Scientific Name & Syn.

Cenchrus setiger Vahl, Enum. Pl. 2:395 (1806).

Syn.

Cenchrus montanus Nees ex Steud., Syn. Pl.

Glumac. 1:111 (1854).

Annual to short-lived perennial.

Description

Grass producing numerous erect culms terminating in twisted spicate inflorescences. Spikes cup-shaped with fused bracts; base of cup with bristles; spikelets spiny.

Habitat

Gardens and fields.

Distribution

Weed of gardens, plantations and fields.

Ind/Exo/Cult

Introduced.

Local Use

Collected as fodder.





Darab, Sabat; صباط، صباط

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Paniceae

Scientific Name & Syns.

Digitaria sanguinalis (L.) Scop., Fl. Carniol., ed. 2, 1:52 (1772).

Syns.

Panicum sanguinale L., Sp. Pl., ed.1, 57 (1753); Digitaria sanguinalis (L.) Scop. var. aegyptiaca (Retz.) Maire & Weiller, Fl. Afr. Nord, 1:299(1952).

Habit

Annual or biennial grass.

Description

Slender grass with lush green growth; spikes long, slender, alternate and widely spaced, of 10-12 spikelets along a thin rachis.

Habitat

Moist ground.

Distribution

Widespread weed of lawns, gardens and fields forming dense growth near water leakage points.

Ind/Exo/Cult

Introduced.

Local Use





Zepheera; زفیـــره

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Paniceae

Scientific Name & Syn.

Echinochloa colona (L.) Link., Hort. Berol. 2:209 (1833).

Syn.

Panicum colonum L., Syst. Nat., ed. 10, 2:870 (1759).

Habit

Annual grass.

Description

Decumbent grass rooting at nodes and giving erect culms with few nodes and terminating in raceme-like spikes.

Habitat

Moist ground of lawns, gardens and fields.

Distribution

Common weed.

Ind/Exo/Cult

Introduced.

Local Use

Fodder plant.







Dhunaiba, Abu roukba; ذنيبه، أبو ركبه

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Paniceae

Scientific Name & Syns.

Echinochloa crusgalli (L.) P. Beauv., Ess. Agrostogr. 53, 161 (1812).

Syns.

Oplismenus crus-pavonis H. B. K. (1816); Echinochloa crusgalli var. mitis (Pursh) Peterm.; var. breviseta (Doell) Podu.; var. longiseta (Doell) Podu.

Habit

Perennial grass.

Description

Grass with erect culms ending in raceme-like spikes. Spikelets ovate, green.

Habitat

Moist ground.

Distribution

Agricultural land.

Ind/Exo/Cult

Introduced.

Local Use



Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Paniceae

Scientific Name

Panicum coloratum L., Mant. Pl. 1:30 (1767).

Habit

Perennial grass.

Description

Robust grass with large linear-lanceolate leaves and tall culms terminating in much branched lax panicles.

Habitat

Moist wasteland and edges of cultivation.

Distribution

A recent introduction established from escapes of fodder plantations spreading and growing profusely by water leakage points and by water tanks outside homes, in fields and villages.

Ind/Exo/Cult Introduced.

Local Use





Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Paniceae

Scientific Name

Panicum turgidum Forssk., Fl. Aegypt.-Arab. 18 (1775).

Habit

Perennial grass.

Description

Tussock-forming grass up to a metre across with numerous irregular knobby branches. Inflorescences with few awned spikelets; anthers bright orange.

Habitat

Sandy soil.

Distribution

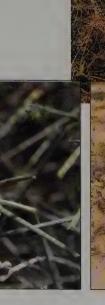
Widespread and very common in Dukhan vicinity and on sandy mounds in N.E. and S. Qatar.

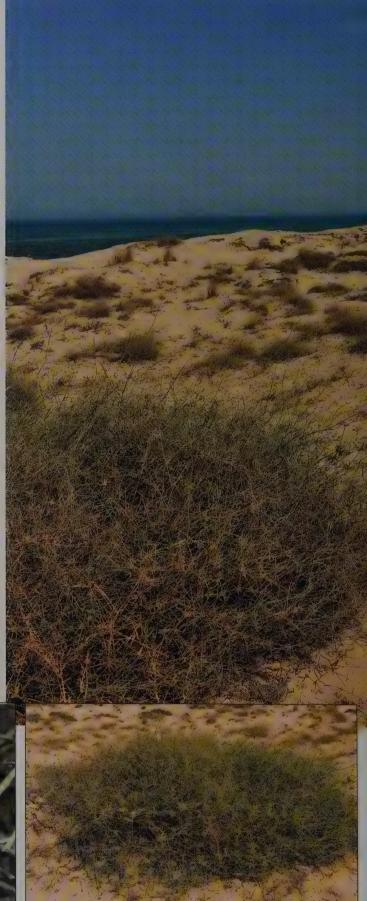
Ind/Exo/Cult

Indigenous.

Local Use

Range grass.







إثمام، ثمام ; ألمام، ثمام

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Paniceae

Scientific Name & Syns.

Pennisetum divisum (Forssk. ex J.F. Gmel.)

Henrard., Blumea, 3:162 (1938).

Syns.

Pennisetum dichotomum (Forssk.) Delile, Fl.

Aegypt.-Arab. 20 (1775) non L. (1753); *Pennisetum*

elatum Hochst. ex Steud. (1841).

Habit

Perennial grass.

Description

Tussock-forming grass with numerous basal culms; spikes cylindrical, pale yellow with soft awned spikelets.

Habitat

Sandy mounds and depressions.

Distribution

Widespread throughout Qatar and common along Doha roadsides and wasteland.

Ind/Exo/Cult

Indigenous.

Local Use

Range grass.





إثمام، ثمام، ثيموم ;Ithmam, Thumam, Thaymoum

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Paniceae

Scientific Name & Syn.

Setaria verticillata (L.) P. Beauv., Ess. Agrostogr. 51, 178 (1812).

Syn.

Panicum verticillatum L., Sp. Pl., ed. 2, 82 (1762).

Habit

Annual grass.

Description

Grass with dense vegetative growth and cylindrical

sticky spikes; spikes long and twisted clinging to all objects.

Habitat

Garden soil.

Distribution

Weed of fields, gardens, lawns and palm plantations.

Ind/Exo/Cult

Introduced.

Local Use





لصيق، شعير الفار، ذيل القط ;Lusaig, Shaeer al far, Dhail al qit

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae,

Tribe: Paniceae

Scientific Name & Syn.

Setaria viridis (L.) P. Beauv., Ess. Agrostogr. 51, 171 (1812).

Syn.

Panicum viride L., Syst. Nat., ed. 10, 2:870 (1759).

Habit

Annual grass.

Description

Grass with sticky cylindrical spikes similar to S.verticillata but with shorter and comparatively of more straight spikes.

Habitat

Garden soil.

Distribution

Weed of fields, gardens, lawns and palm plantations.

Ind/Exo/Cult

Introduced.

Local Use







لصيق، شعير الفار، ذيل القط ;usaig, Shaeer al far, Dhail al qit

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Paniceae

Scientific Name & Syns.

Urochloa trichopus (Hochst.) Stapf, Fl. Trop. Afr. 9, (1920).

Syns.

Panicum trichopus Hochstetter (1844); Eriochloa trichopus (Hochst.) Bentham (1881).

Habit

Annual grass.

Description

Robust grass similar to *Brachiaria* spp. Spikelets broad with long mucron.

Habitat

Moist ground.

Distribution

Agricultural weed.

Ind/Exo/Cult

Introduced.



Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae, **Tribe: Poeae**

Scientific Name & Syns.

Cutandia memphitica (Sprengel) Benth., J. Linn. Soc. Bot. 19:118 (1881).

Syns

Dactylis memphitica Spreng., Bot. Gart. Halle, Nachtr. 1:20 (1801); Festuca memphitica (Spreng) Boiss. ex Coss., Notes Pl. Crit. 183 (1851).

Habit

Annual grass.

Description

Grass with few-nodded culm terminating in dichotomously branched inflorescences. Spikes with few spikelets.

Habitat

Sandy soil and moist areas.

Distribution

Common on coastal sandy mounds S. of Al Ghareya and rare elsewhere and rare on cultivated land. Reported from S. Qatar.

Ind/Exo/Cult

Indigenous.

Local Use

Range grass.





ثیل، شعیر ;Theel, Shaeer

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Poeae

Scientific Name

Lolium rigidum Gaudin., Agrost. Helv. 1:334 (1811).

Habit

Annual grass.

Description

Grass with extremely long raceme-like spikes; spikes up to 20 set alternately on a jointed rachis, each subtended by a leafy spathe; spikelets alternate, lanceolate.

Habitat

Field and garden soils.

Distribution

A seasonal weed of lawns, gardens and fields.

Ind/Exo/Cult

Introduced.

Local Use





Albaan, Shelam, Zeidan; هببان شیلم، زیدان

Order

Family

Monocots/ **Commelinids** **Poales**

Poaceae, **Tribe: Poeae**

Scientific Name

Poa annua L., Sp. Pl., ed. 1:68 (1753).

Habit

Annual grass.

Description

Slender small grass. Inflorescences branched, lax, pale green-yellow with few spikelets.

Habitat

Garden soil.

Distribution

Planted as a lawn grass and is now a widespread

garden weed in Doha and other

towns.

Ind/Exo/Cult

Introduced and now naturalized.

Local Use

Lawn grass and mowed as fodder grass.





Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Poeae

Scientific Name & Syn.

Sphenopus divaricatus (Gouan) Rchb., Fl. Germ.

Excurs. 45 (1830).

Syn.

Poa divaricata Gouan, 111. Observ. Bot. 4, t. 2,1 (1773).

Habit

Annual grass.

Description

Delicate small slender purple grass with culms terminating in lax much branched panicles.

Habitat

Saline sandy soil.

Distribution

Reported by Obeid (1975), listed by Bolous (1978) and reported by El Amin (1983) in S. Qatar.

Ind/Exo/Cult

Introduced.

Local Use



Clade
Monocots/
Commelinids

Order **Poales**

Family

Poaceae,

Tribe: Stipeae

Scientific Name & Syn.

Stipa capensis Thumb., Prodr. Fl. Cap. 1:19 (1794).

Syn.

Stipa tortilis Desf., Fl. Atlant. 1:99, t.31, f.1 (1798).

Habit

Annual grass t.

Description

Pale green slender grass turning golden yellow at maturity; spikes open lax panicles; spikelets with long barbed awns that get attached to passers-by.

Habitat

Sandy stony deserts and shallow depressions.

Distribution

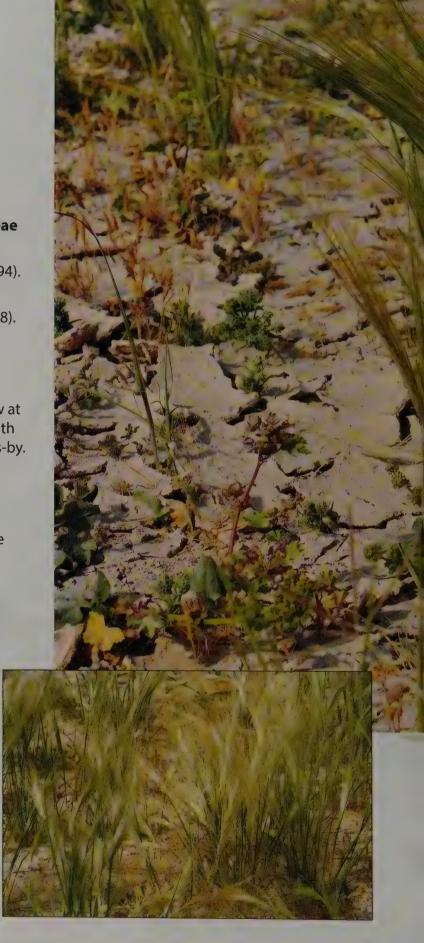
Most common desert grass appearing with the onset of the rains and produces nasty awns.

Ind/Exo/Cult

Indigenous.

Local Use

Range grass grazed only in dry the state.





Samma, Safa; صمعا، سفا

Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Scientific Name & Syn.

Henrardia pubescens (Bertol.) C. E. Hubb. in Blumea, Suppl. 3:19 (1946).

Syn.

Rottboellia pubescens Bertol, (1842).

Habit

Annual grass.

Description

Small rigid grass with culms producing axillary, very narrow jointed spikes with appressed spikelets.

Habitat

Sandy soil.

Distribution

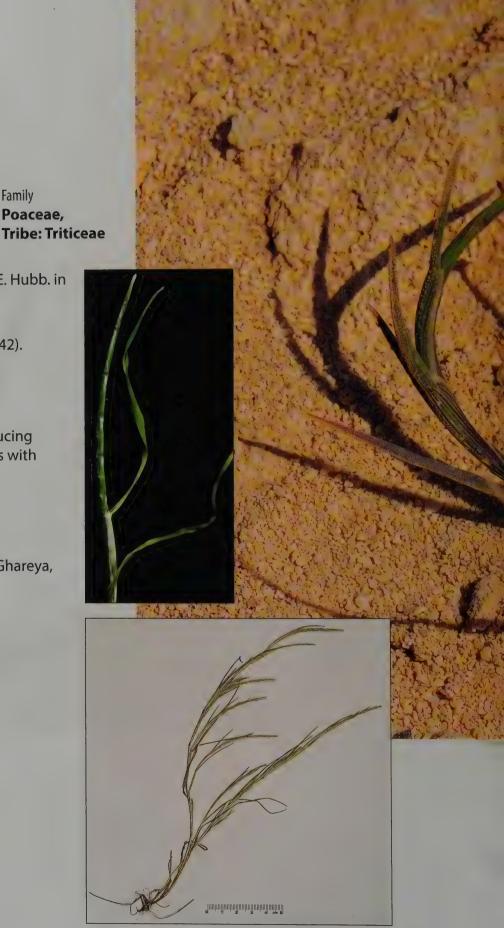
Rare in the wild collected at S. Al Ghareya, occasional in Doha gardens.

Ind/Exo/Cult

Indigenous.

Local Use

Range grass.





Order

Family

Monocots/

Poales

Poaceae,

Commelinids

Tribe: Triticeae

Scientific Name & Syn.

Hordeum murinum L., Sp. Pl., ed. 1, 85 (1753).

Syn.

Hordeum glaucum Steud., Syn. Pl. Glumac. 1:352 (1854); subsp. glaucum (Steudel) Tzvelev in Nov. Sist. Vyssh. Rast. 1917:67 (1917).

Habit

Annual grass.

Description

Small leafy grass with numerous culms ending in short spikes hardly exposed from the top leaf; spikelets arranged closely around the rachis with long soft awns.

Habitat

Sandy-clayey soil.

Distribution

Weed of gardens and fields.

Ind/Exo/Cult

Introduced.

Local Use





شعیــر ;Shaeer

Order

Family

Monocots/ Commelinids **Poales**

Poaceae,

Tribe: Triticeae

Scientific Name & Syn.

Hordeum vulgare L., Sp. Pl., ed. 1:84 (1753).

Syn.

Hordeum distichon L., Sp. Pl., ed. 1, 85 (1753); Hordeum hexastichon L., Sp. Pl., ed. 1, 85 (1753).

Habit

Annual grass.

Description

Cultivated barley with numerous basal branches ending in long spikes with extremely long awns.

Habitat

Arable land and fields.

Distribution

Weed in gardens and fields and by roadsides appearing after the rains.

Ind/Exo/Cult

Escapes of cultivation and possibly spread via undigested barley grains in animal droppings and is now an established naturalized weed.

Local Use







شعیــر ;Shaeer

Order

Family

Monocots

Alismatales

Potomogetonaceae

Scientific Name

Zannichellia palustris L., Sp. Pl., 2, 969 (1753).

Habit

Aquatic annual or short-lived perennial.

Description

Monoecious slender submerged plants appearing like grasses; branches slender, striated, whorled and forming soft mats in fresh water pools. Flowers unisexual, a pair (male and female), small and axillary.

Habitat

Fresh water ponds and sewage ponds.

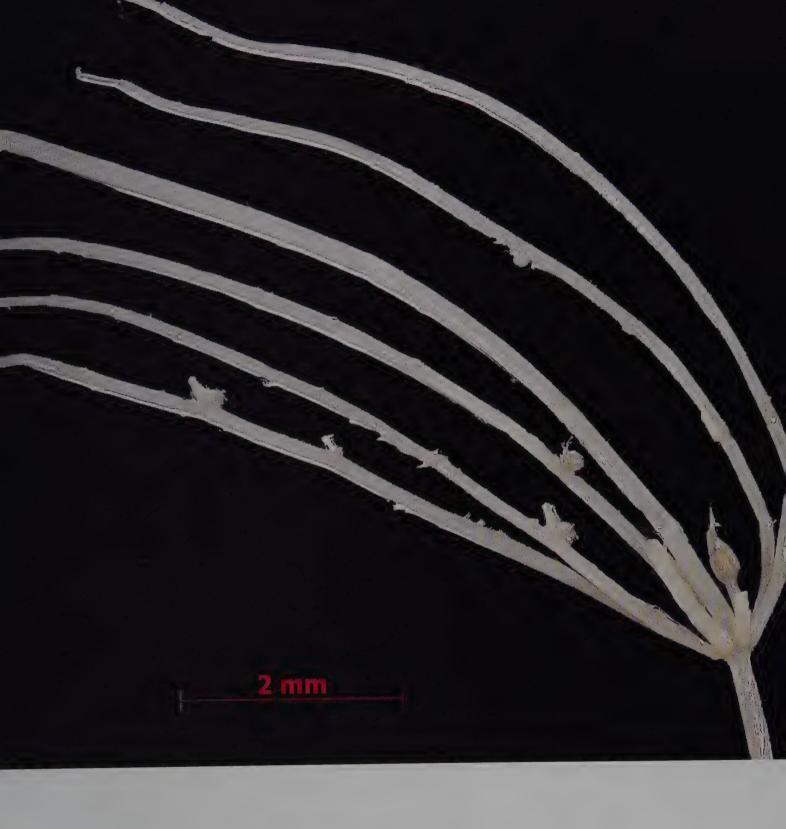
Distribution

A cosmopolitan species most likely introduced by migrant wading birds feeding on organisms in water ponds. Large mats were observed in a waste water pool outside Doha.

Ind/Exo/Cult

Introduced.





Order

Family

Monocots/ **Commelinids** **Poales**

Typhaceae

Scientific Name & Syn.

Typha domingensis (Pers.) Poir. ex Steud., Nomencl. Bot. 860 (1824).

Syn.

Typha australis Schum. & Thonn. in Schum., Beskr. Guin. Pl. 401 (1827).

Habit

Perennial reed.

Description

Giant reed with strong rhizomes giving compact erect shoots with large leaves. Flowers with modified parts (perianth); inflorescences darkbrown thick cylindrical spikes.

Habitat

Wetland.

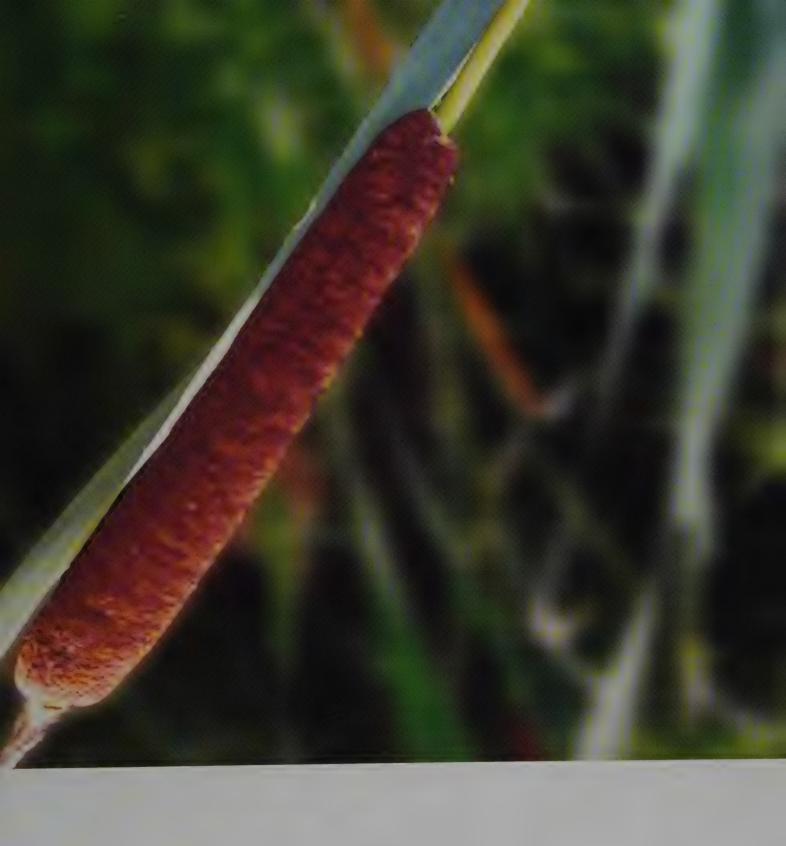
Distribution

Swampy areas of sewage disposal sites and of water leakage points in farms.

Ind/Exo/Cult

Introduced.





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